dScope Series III – Software changes in V1.45h

The following is a list of changes in the dScope Series III software release, version 1.45h.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

Issues resolved

Issue #	Area	Description
	DRIVERS	Improve reliability of firmware download when using USB3 connections

dScope Series III – Software changes in V1.45g

(not released)

Issue #	Area	Description
2030	DRIVERS	Drivers must now be signed by Microsoft in order to be installed on Windows 10

dScope Series III – Software changes in V1.45f

The following is a list of changes in the dScope Series III software release, version 1.45f.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

Issues resolved

Issue #	Area	Description
2028	DRIVER	Firmware download very slow over USB 2.0 in V1.45e
2027	SOUNDCARD	Fix for ASIO soundcards which have no input channels.
2029	VSIO	The three clock frequency fields on the VSIO control dialog window never display anything other than "- - - --".

dScope Series III – Software changes in V1.45e

The following is a list of changes in the dScope Series III software release, version 1.45e.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

Issues resolved

Issue #	Area	Description
2026	DRIVER	dScope III driver not detected using USB 3.0.

dScope Series III – Software changes in V1.45d

The following is a list of changes in the dScope Series III software release, version 1.45d.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

Issues resolved

Issue #	Area	Description
2025	Automation	Selecting "when to run script on sweep step" in script editor would crash dScope.
2023	Generator	Bin centres signal amplitude error when start or end points near 0 and Nyquist.
2024	Signal Analyzer	Signal Analyzer inter-channel phase readings incorrect when units in time/samples.
2022	SOUNDCARD	Selection of AES17 filter in CTA on soundcards incorrect
2021	SOUNDCARD	Bandwidth/shape of band-reject and band-pass filters incorrect on soundcards (CTA).
2020	SOUNDCARD	Selection of weighting filters in CTA on Soundcards incorrect

dScope Series III – Software changes in V1.45c

The following is a list of changes in the dScope Series III software release, version 1.45c.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

Issues resolved

Issue #	Area	Description
2014	AUTOMATION	The method DS.LimitTable.LMT_InitTable fails when called from external automation.
2013	SERIAL PORTS	Serial port does not support embedded null values.

dScope Series III – Software changes in V1.4b

The following is a list of changes in the dScope Series III software release, version 1.45b.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

Issues resolved

Issue #	Area	Description
2012	CTD	With CTA set up with THD-N function in peak response mode, the CTD does not reliably detect glitches in the audio signal.

dScope Series III – Software changes in V1.45a

The following is a list of changes in the dScope Series III software release, version 1.45a.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

Issues resolved

Issue #	Area	Description
2007	AUTORANGING	Auto-ranging can sometimes take a long time to settle on a value.
2006	AUTORANGING	When auto-ranging in medium step size (6dB), there is a possibility where gain range toggles indefinitely between two values.
1998	AUTORANGING	Particular gain range changes that involve several relays suffer from a timing problem that causes them not to switch properly. Causes intermittent calibration problems.
2003	CTA	When using split generator with different frequencies, readings of gain using bandpass are not updated when swapping between internal and external loopback.

1999	INSTALLATION	Installing dScope for the first time had no user bar contents and no default config.
2009	MONITOR OUTPUT	Selecting which signal is routed to the monitor outputs does not work under some conditions.
2001	SERIAL PORTS	Using dScope serial ports from V1.43 (new dll replaces mscomm), null characters (&H00) are not passed though serial ports.
2005	SOUNDCARD	Selecting phase invert on signal generator does not do anything to soundcard outputs.
2000	SOUNDCARD	Signal analyser interchannel phase reading from soundcards does not work.

dScope Series III – Software changes in V1.45

The following is a list of changes in the dScope Series III software release, version 1.45.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

New Features

Issue #	Area	Description
1982	FFT	Added 512k and 1M FFT points for soundcard inputs analysis.

Issues resolved

Issue #	Area	Description
1967	AUTOMATION	Serial port input buffer data were inconsistent.
1966	AUTOMATION	Events passed to scripts when trace limits were breached did not contain trace object.
1979	CTD and FFTD	Setting parameters of the CTD from script would fail.
1970	DRAW BUTTON	Monitor output button selection was not shown as selected once 'both' option was selected.
1978	EXTERNAL SYNC	Wordclock refsync would spuriously lose lock.
1968	FFT	FFT residual noise filter was missing on Ch B.
1983	MISC	Added tooltip for analogue input/output 'Tied to input' checkbox.
1996	SOUNDCARD	When toggling between ASIO and WDM option for the same soundcard, dScope could continuously display pop-up messages making it impossible to exit dScope.
1989	SOUNDCARD	Truncated WDM audio endpoints in Windows 7.
1988	SOUNDCARD	dScope would crash when toggling between ASIO and WDM audio devices.
1986	SOUNDCARD	Soundcard FFT throttling was not working resulting in UI being locked up during FFT analysis of a soundcard.
1981	SOUNDCARD	When soundcard was set to 'none', analyzer input would change to 'digital'.
1971	SOUNDCARD	Soundcard options were not restored on disconnect-reconnect.
1972	TRACE WINDOW	Trace window showed wrong part if trigger selected was not at the start of buffer.

1969	TRACE WINDOW	Trigger at end of buffer caused crash when analyzing soundcards.

dScope Series III – Software changes in V1.44

The following is a list of changes in the dScope Series III software release, version 1.44.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

Issues resolved

Issue #	Area	Description
1964	MISC	Some multi-monitor configurations break tabs

dScope Series III – Software changes in V1.43b

The following is a list of changes in the dScope Series III software release, version 1.43b.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

Issues resolved

Issue #	Area	Description
1963	AUTOMATION	Automation access to FFT Detector Readings could crash if Detector IDs were not consecutive.
1962	FFT ANALYSIS	Frequency correction could fail on cross-domain multi-tone, A->D.
1961	SOUNDCARD OUTPUTS	When loading a Configuration with Soundcard Outputs enabled, and a multi-tone waveform selected in the Signal Generator, the output amplitude of the signal could occasionally be incorrect.

dScope Series III – Software changes in V1.43a

The following is a list of changes in the dScope Series III software release, version 1.43a.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

Issues resolved

Issue #	Area	Description
1957	AUTOMATION	VB6 WithEvents stopped working since V1.30 release.
1955	AUTOMATION	If dScope was automated, and Configurations were used with multiple FFT Detectors, then dScope could crash when "CloseApplication" was called.
1954	AUTOMATION	Starting the dScope from a C# application, if hardware was turned off, threw an exception.
1958	FFT DETECTORS	If an FFT Detector was set up to measure SMPTE/DIN, but the higher frequency generated tone was less than 700Hz, the dScope crashed.
1953	FFT DETECTORS	FFT Detector analysis of imported WAV file could incorrectly use the current input sample rate instead of the WAV file's sample rate when calculating filters.
1960	REGULATION	When Regulating a non-monotonic signal, with a start point above the maximum Regulation limit, the Regulation did not correctly move the Generator amplitude to the maximum limit before performing Regulation.
1959	SWEEPS	If Regulation was used on a Sweep Step, and the Regulation failed, the Sweep Step was not correctly marked with this failure.

dScope Series III – Software changes in V1.43

The following is a list of changes in the dScope Series III software release, version 1.43.

Any problems encountered should be reported to dScope III technical support at tech.support@prismsound.com

New features

Issue #	Area	Description
1950	MISCELLANEOUS	New 'Auto Sequence' automated test script added to User Bar and Applications button.

1885	SERIAL PORTS	Serial Port control now works on 64-bit operating systems.

Issues resolved

Issue #	Area	Description
1951	TRACE WINDOW	Limit Lines created as a copy of a Trace, then Transformed, did not export the transformed data correctly to a file from the Trace Values window.

dScope Series III – Software changes in V1.42a

Issues resolved

Issue #	Area	Description
1949	FFT	After loading a Configuration with the FFT trigger turned on, the FFT could very occasionally fail to trigger until the trigger was turned off and then back on again.
1948	ANALOGUE INPUTS	The Analogue auto-ranging could get stuck on an incorrect range when the 20dB step size was used.
1947	SWEEPS	Setting the Sweep 'Time interval' from a script could cause the software to crash.

dScope Series III – Software changes in V1.42

New features

Issue #	Area	Description
1945	MISCELLANEOUS	Implemented functionality to deal with new IIIE model number (dScope III 'Essentials')

Issues resolved

Issue #	Area	Description

1946	ANALOGUE INPUTS	When auto-ranging was using the 6dB or 20dB step size, input signals hovering around the boundary between two ranges could cause auto-ranging to continually flicker between ranges.

dScope Series III – Software changes in V1.41b

Issues resolved

Issue #	Area	Description
1943	EVENT MANAGER	Changes for Chinese UI could cause Event Log file to contain invalid characters on non-Chinese Windows.
1940	MISCELLANEOUS	Menus changed to Chinese when Trace window Print Setup dialogue box was opened under Non-UK-English Windows.
1941	READINGS	Changing Unit on Readings could cause display problems with extra text displayed from previous value.

dScope Series III – Software changes in V1.41a

Issues resolved

Issue #	Area	Description
1938	FFT ANALYSIS	If a "frequency correction" Window Function is in use, then the software could crash if the first FFT bin contained the highest tone.
1939	MISCELLANEOUS	V1.41's Chinese Resources displayed incorrectly on some computers with locale set to 'English (United States)'

dScope Series III – Software changes in V1.41

New features

Issue #	Area	Description
1239	MISC	dScope user interface now available in simplified Chinese.

Issues resolved

Issue #	Area	Description
1936	FFT ANALYSIS	On particularly fast PCs, averaged FFT buffers can be overwritten by a non-averaged buffer.

dScope Series III – Software changes in V1.40f

Issues resolved

Issue #	Area	Description
1933	ANALOGUE INPUTS	Analogue Input range could get stuck on a higher range, if 20dB step size was used together with DC-coupled hardware.
1930	AUTOMATION	When FFTD_GetBuffer was called from a .NET client (VB.NET or C#) it did not recognize a buffer parameter of an array of doubles.
1925	AUTOMATION	DI_InputsTerminated automation property was set to read-only when used from an external COM client application (e.g. a VB6 application)
1928	FFT DETECTOR	Sweep Y Results were not recalled correctly from a Configuration, when linked to an FFT Detector running a Calculation script, and set to "user"-relative.
1932	IMPULSE RESPONSE	If Impulse Response was set to "Apply always", and the Impulse Response was turned off, an Impulse Response Window Trace on the Trace Window did not correctly update.
1929	INSTALLATION	Version 1.40e (32-bit version) installed an incorrect INF file; driver files were not found automatically when the hardware was switched on for the first time.
1926	INSTALLATION	Installation of ScriptDlg could sometimes fail on 64-bit Windows 7
1931	READINGS	When multiple Readings were opened, and Peak Hold values were reset from a script, the values could continuously reset on one of the Readings.

dScope Series III – Software changes in V1.40e

Issues resolved

Issue #	Area	Description
1913	AUTOMATION	When controlling the dScope from an external application (e.g. in C#), and using FFT Detectors, an error message "Pure virtual function called" could occur when CloseApplication() was called from the controlling code.

1917	FFT PARAMETERS	When importing sample buffers, with averaging turned on, averaging could sometimes reset for long WAV files.
1912	OPTIONS	"Automation Scripts" folder on Options was not correctly recalled if edited.
1910	READINGS	When a Reading's min or max limit breach events were turned off using the Event Manager, the Reading could stop checking limits.
1919	SIGNAL GENERATOR	When entering burst durations, the range checking could get in a muddle and disallow valid entries.
1921	SLIDERS	Slider step size was not correctly applied when a step size other than "Auto" was selected.
1915	SWEEPS	A "Manual" Sweep could incorrectly initialize to running backwards, which confused Trace scales.
1920	TRACE WINDOW	When a Configuration was recalled with a Trace Window open but not on the current page, the Quick Legend was not recalled correctly when the page was changed.
1918	TRACE WINDOW	A Filter Trace created from an FFT Detector could fail to update properly, after loading a Configuration and doing a sample buffer import.

dScope Series III – Software changes in V1.40d

New features

Issue #	Area	Description
1907	TRACE WINDOW	Added options for line width and font size on Trace Window Print/Export

Issues resolved

Issue #	Area	Description
1908	IMPULSE RESPONSE	When measuring an impulse response in channel-relative mode, the impulse response could show at an incorrect level if Analogue Input gain ranges were different on each channel.
1906	PRINT PREVIEW	Print Preview is now shown in main dScope window again; reverts changes due to new Microsoft libraries used in V1.40 which showed previews in individual child windows.
1905	TRACE WINDOW	If a Filter Trace was set to track the Signal Generator, and the Generator Frequency was updated while the trace was turned OFF, the filter did not correctly redraw when turned on again.
1903	TRACE WINDOW	When CT Detector BP/BR filter was set up to track the generator, and a CT Detector filter Trace was shown on the Trace Window, changing the Signal Generator frequency did not always update the filter Trace.

dScope Series III – Software changes in V1.40c

Issues resolved

Issue #	Area	Description
1901	AUTOMATION	When a dScope object was opened multiple times from a VB application using "CreateObject", subsequent calls to CloseApplication crashed.
1899	CHANNEL STATUS	Continuously-changing Channel Status could erroneously flag occasional CRC errors.
1898	EVENT MANAGER	When loading a Configuration with Readings (with limits) and the Event Manager open, the software could crash.
1900	SIGNAL GENERATOR	V1.40b introduced a problem with Signal Generator output when loading some Configurations, with analogue sample rate set to 192kHz.

dScope Series III – Software changes in V1.40b

Issues resolved

Issue #	Area	Description
1884	IMPULSE RESPONSE	When the generated signal was a WAV file, impulse response w.r.t. generator did not work.
1883	IMPULSE RESPONSE	When a mono wavetable was loaded to channel B of the Signal Generator, impulse response did not work correctly.
1887	SETTLING	When loading a Configuration from a Script, and a Sweep was run before loading the Configuration, the Settling parameters were not correctly updated before running a Sweep from the new Configuration.
1892	SIGNAL GENERATOR	If a user wavetable was muted, then "No. times to play" was changed from "once" to "continuously", the wavetable started playing (even though it was muted).
1891	SOUNDCARD OUTPUTS	When a multi-tone signal was output on the Soundcard Outputs, muting and un-muting the Signal Generator output could cause the level of the Soundcard Outputs to drop.
1889	SWEEPS	Performing a Sweep of FFT Detector (relative) vs "X axis = Source" of CT Detector (absolute) caused all X sweep points to be returned as 0.
1878	SWEEPS	When performing nested sweeps, the last Sweep could fail to appear on the Trace Window legend.
1897	TRACE WINDOW	Print/Export setup crashed when Marks were on, in relative mode, and Marks had negative relative X values.
1894	TRACE WINDOW	Fully un-zooming Scope Trace of high-amplitude input (e.g. 100V) could crash.
1888	TRACE WINDOW	Auto-zoom Scope Trace, when displayed in Volts, could fail to work correctly
1880	TRACE WINDOW	Closing Trace Window Print Preview with the "X" button, rather than the "Close" button, crashed the software.
1879	TRACE WINDOW	When recalling a Configuration with nested sweeps, the Trace Window could erroneously show a separate Y scale for each

Trace on channel B.

dScope Series III – Software changes in V1.40a

Issues resolved

Issue #	Area	Description
1876	CT DETECTOR	High-pass filter "Off" was incorrectly removed from CT Detector filter list, when analyzing Analogue and hardware was DC-coupled.
1875	IMPULSE RESPONSE	Applying Impulse Response Window "always" did not correctly recalculate the FFT when the Window was changed, but not the data.
1873	READINGS	Reading Limits dialogue box could fail to open, for Readings loaded as part of a Configuration.
1871	SIGNAL GENERATOR	When running at 192kHz, selecting "Phase Invert" caused the analogue outputs to be low by 1.4dB for table-based signals (Bin Centres, Swept Sine etc)

dScope Series III – Software changes in V1.40

New features

Issue #	Area	Description
1865	MISCELLANEOUS	dScope program files and drivers now support 64-bit operating systems.

Issues resolved

Issue #	Area	Description
1857	DESKTOP	When a panel was MINIMIZED on page 1, and restored on another page, recalling the Configuration incorrectly left it minimized on both pages.
1852	DIG CARRIER OUTPUTS	"Audio-band noise" jitter amplitude was not correctly recalled after a change to the sample rate.
1866	DIGITAL OUTPUTS	Selecting "Channel Check" mode, after selecting "Loop-through" mode, caused no signal to be output from Digital Outputs.

1858	FFT Detector	FFT Detector "User-defined" relativity (only relevant for FFT Detector Calculation scripts) was incorrectly enabled.
1861	FFT DETECTORS	When analogue input was selected, recalling a Configuration did not correctly recall DC Block = "Off" on an FFT Detector.
1853	FFT PARAMETERS	Importing a digital sample buffer failed to update the Trace Window and FFT Detectors, if the digital input was currently unlocked.
1856	MISCELLANEOUS	dScope no longer outputs a short burst of 1kHz tone at startup.
1854	SWEEPS	Calling Sweeps.SW_SetResult[N]FFTDetector from a script failed, with the error message giving an incorrect result number.
1860	TRACE WINDOW	FFT Trace did not recall scales correctly in Configuration when Live FFT Traces were turned off.
1859	TRACE WINDOW	When zooming in Y scales with a unit of Hex, scale values could get incorrectly rounded (e.g. 03, 07, 0B instead of 04, 08, 0C)

dScope Series III – Software changes in V1.30b

New features

Issue #	Area	Description
1847	FFT PARAMETERS	Added the ability to retrieve unfiltered FFT buffer from a script, even if FFT pre-weighting was turned on.
1846	TRACE WINDOW	Added Automation method to retrieve Trace Intervals / Log setting
1845	TRACE WINDOW	Added Automation method to retrieve Trace Colour

Issues resolved

Issue #	Area	Description
1842	DIGITAL OUTPUTS	Digital Outputs ChB Mute was not correctly disabled at 192kHz
1848	EVENT MANAGER	Changed Trace limit breach events so that they breach on EVERY limit, rather than just flagging a change to and from the "breached" status.
1851	FFT DETECTOR	After removing an FFT Detector Calculation Script that was selected in an FFT Detector, the Detector did not allow re-selection of a new script.
1850	LIMIT LINES	Limit breaches could fail to trigger with certain signals (particularly those with high Q factor)
1844	READINGS	Changing Limit properties of a Reading, when one of the minimum or maximum events was turned off, could allow events to not be fired correctly.
1839	SLIDER	Slider properties dialogue box did not correctly accept changes to maximum range.
1841	TRACE WINDOW	User-defined Traces lost their "Live" status (and could not be copied) when recalled from a Configuration.
1843	VSIO ADAPTER	VSIO Adapter properties were not correctly recalled after a Configuration load, if VSIO was in standby.

dScope Series III – Software changes in V1.30a

New features

Issue #	Area	Description
1838	TRACE WINDOW	Script command to toggle Impulse Response Window editing mode.

Issues resolved

Issue #	Area	Description
1836	AUTOMATION	Automatic closing of ScriptDlg windows caused AVG antivirus to throw up a message that the operating system had changed.
1831	AUTOMATION	dScope events with underscores in the name (e.g. 'ChannelCheckFailed_ChA') did not correctly fire into VB6 client applications.
1833	CONFIGURATIONS	Configurations saved with beta-release software, with individual FFT parameters panels open, could fail to load under V1.20 and later software.
1837	FFT DETECTORS	GetBufferSize script method returned the incorrect size if only channel B was being analyzed.
1832	READINGS	Selecting Properties of a Reading created from a Channel Status input result could crash the software.

dScope Series III – Software changes in V1.30

New features

Issue #	Area	Description
200	AUTORANGE	Analogue Input range can now be set separately for each channel.
1805	MISCELLANEOUS	dScope software now supports Analogue-only hardware options.

Issues resolved

Issue #	Area	Description
1815	MONITOR OUTPUTS	"Vid Div" option on Monitor Outputs occasionally failed to operate.
1825	SIGNAL ANALYZER	When displaying values in dBr, changing the D/A line-up could sometimes cause dBr values to incorrectly change.
1828	SWEEPS	When changing a Sweep Result from the selected channel of one FFT Detector to another, the system reverted to the previously selected FFT Detector.

dScope Series III – Software changes in V1.21p

Issues resolved

Issue #	Area	Description
1817	AUTOMATION	Using #Include in script files was case-sensitive for the first file in the list, and only allowed "#Include" with a capital "I"
1810	CONFIGURATIONS	Continually clicking on Configs in the "Load Configuration" dialogue box could cause an error message about exceeding the number of Detectors, and then crash.
1820	REGULATION	Regulation Tolerance Offset was not correctly reloaded from a Configuration.
1816	SWEEPS	Sensed sweep of a single channel, where both channels were used as Results, did not correctly display X values of the non-sensed channel.
1821	TRACE WINDOW	Scripted "Limit breached" flags for a Trace did not work, if corresponding Event Manager event was turned off, because limits were not checked.
1819	TRACE WINDOW	Changing global channel selection to channel B, then back to A again crashed if there were no Traces on channel B of the Graph Window.
1818	TRACE WINDOW	Loading Configuration saved with V1.11g, where a Sweep had been done of an FFT Detector and then the FFT Detector subsequently removed, crashed.
1806	TRACE WINDOW	On Vista, adding/removing Traces caused the Trace legend to move slightly.
1804	TRACE WINDOW	Setting range of user-defined Traces could fail because it did range checking on the data, not the scale values set when creating the Trace.
1809	VSIO ADAPTER	VSIO Adapter panels saved with Configuration did not recall clock information correctly.

dScope Series III – Software changes in V1.21o

Issues resolved

Issue #	Area	Description
1802	CONFIGURATIONS	A bug in older versions of software could save Configurations in a corrupted state; these Configurations are now successfully detected and reloaded correctly.
1801	CONFIGURATIONS	Repeated loading of Configurations with certain specific settings, via Automation from an external program (e.g. LabVIEW) could occasionally crash the software.
1803	MULTI-TONES	Applying the "multi-tone helper" window could very occasionally crash, if some multi-tone Traces were already displayed with a different number of tones.

dScope Series III – Software changes in V1.21n

Issues resolved

Issue #	Area	Description
1785	AUTOMATION	Including a script with a full path name using #Include did not always work correctly when a full path was specified.
1784	GENERATOR	After outputting user wvavetable on soundcard, then switching to another (buffer-based) function, then back to the user wavetable, channel B was output incorrectly.
1794	IMPULSE RESPONSE	When digital impulse response performed relative to the other channel, with impulse normalized to trigger point, and trigger point 1/4 buffer, multiple impulses could appear in the buffer.
1796	MULTI-TONES	When applying the multi-tone helper, with a "channel-relative" measurement, if the existing setup had the FFT trigger on and was analyzing a single-channel, the software could crash.
1798	SCRIPTS/FFT DETECTOR	When scripts were run externally from dScope (e.g. from AutotestSQL), and accessed FFT Detectors that were re-loaded from a Configuration, the scripts could crash when they tried to re-acess those Detectors.
1792	SIGNAL ANALYZER	Selecting "Sweep this value" from context menu of Signal Analyzer Frequency crashed the software.
1786	SIGNAL GENERATOR	Loading a user wavetable into channel B as a script generated the same wavetable as channel A, if file names were the same but script was different
1791	SWEEPS	Selecting "Show Range" for Sweep "No. of steps" field crashed the software.
1783	SWEEPS	Sweeping inter-channel Phase as the 2nd Sweep result, could crash the software.
1799	TRACE WINDOW	Exporting a limit line to a tab- or comma-separated file, for a line created by drawing, could crash the software.
1793	TRACE WINDOW	Trace of CTA residual showed 3dB low when CT Detector was in "Absolute" mode, with "RMS" response.
INTERNAL	MULTI-TONES	Internal code to allow testing of frequency-correction on multi-tones using the frequency of one of the tones.

dScope Series III – Software changes in V1.21m

Issues resolved

Issue #	Area	Description
1779	FFT DETECTOR	Reading values from FFT buffer in a script in dBSPL returned values 3dB low.
1775	FFT DETECTOR	Re-locking of Digital inputs could occasionally leave filter frequencies on FFT Detectors incorrect (THD measurements)
1780	SIGNAL GENERATOR	Entering "0Hz" as stop frequency, to generate Swept Sine up to the nyquist frequency, resulted in no signal being generated.
1777	TRACE WINDOW	When created from a script, multiple User Traces all contained separate scales even when scale ranges and units were correct.
1776	TRACE WINDOW	Drawing of User Trace could be incorrect if chunk of data at start was all outside the visible range.

dScope Series III – Software changes in V1.21l

Issues resolved

Issue #	Area	Description
1768	ANALOGUE INPUTS	When loading a Configuration with a certain Analogue Inputs sample rate, over settings where the Signal Generator contained a WAV file at a different sample rate, the Analogue Inputs sample rate would get overwritten with that of the WAV file.
1773	AUTOMATION	Constant definition file added for use in C# applications controlling the dScope via Automation.
1772	FFT DETECTOR	FFT Detector functions (e.g. "FFTD_GetBufferValueAt") were out of sync with the type library, so did not work when called externally, e.g. from a C# program.
1760	READINGS	Loading a Configuration when DI is unlocked left previous (non-unlocked) values in some Readings.
1766	REGULATION	Loading configuration did not correctly recall Generator amplitude Regulation source details
1770	SCRIPT EDITOR	When a script was being debugged, with a ScriptDlg open, and the script stopped at a breakpoint, stopping the script caused the dScope to hang.
1769	SCRIPT EDITOR	When debugging a script, if the Script loaded a Configuration containing a script editor with a DIFFERENT script, then the script being debugged would not successfully reload, so the breakpoints would appear not to have been hit.
1771	SIGNAL GENERATOR	"Bin centres" signal, when generated on analogue outputs at 192kHz, was 0.5dB high.
1761	SIGNAL GENERATOR	Entering a 2nd frequency for a twintone as an "offset" resulted in the frequency being generated incorrectly.
1764	SOUNDCARD OUTPUTS	When using Soundcard output, and function was changed from Sine to Twintone and back to Sine, the frequency ended up halved.
1767	TRACE WINDOW	Saving a configuration with Trace window open on different pages, one of them with a "List of Marks" dialogue box open, caused "Corrupted configuration" errors when re-loading the Configuration.
1765	TRACE WINDOW	Loading traces individually into the Trace window could leave several Traces with the same ID. This caused subsequent problems with scripts which required use of these Trace IDs.

dScope Series III – Software changes in V1.21k

Issues resolved

Issue #	Area	Description
1749	DIGITAL CARRIER	Some reference sync selections could result in carrier output being 3.5UI out of sync with reference, and could incorrectly report the input phase as 0.0UI in these cases.
1748	FFT DETECTOR	When impulse repsonse was turned on, FFT Detector value could be incorrect if not shown as "relative".
1752	MULTI-TONES	In single-channel mode, multi-tones could display incorrectly with all zero data on the Trace window.
1747	SCRIPT EDITOR	When debugging windows were open (Call Stack, Variables, Watch) and the script was "Stepped", this could hang the dScope.
1751	SIGNAL GENERATOR	Loading a WAV file that was not linear PCM format did not correctly show an error message.

dScope Series III – Software changes in V1.21j

New features

Issue #	Area	Description
1741	FFT DETECTOR	FFT Detector Calculation scripts can now access the buffer representing the output of the Continuous-Time Detector and the FFT of that buffer

Issues resolved

Issue #	Area	Description
1726	DIGITAL INPUTS	Channel Check Failed properties returned True to scripts, when Digital Input was unlocked.
1738	FFT DETECTOR	When FFT Detector was set up to "Nth harmonic", but a higher frequency fundamental meant that the harmonic was beyond the nyquist, the last FFT bin was being erroneously included in the band-pass notch.
1736	FFT DETECTOR	FFT Detector Calculation Script command FFTD_GetUnfilteredFFTBinTotal could return incorrect values dependent on the D/A Line-up

1727	FFT DETECTOR	Band-pass Notch filter on FFT Detector, when applied in conjunction with a Weighting filter, overrode the weighting instead of being applied with it.
1728	GENERATOR/ ANALYZER	dBSPL level now allows entry of numbers to 1dp accuracy to allow for calibration adjustment.
1745	SIGNAL GENERATOR	Entering an amplitude in dBr for "Bin Centres" signal did not correctly check the range.
1732	SIGNAL GENERATOR	After loading a Configuration with Amplitude in dBr and D/A Line-up <> 28dBu, Output in dBr could be generated incorrectly
1746	SWEEPS	Limit line for a sweep where the X axis was a channel array did not load even if the limit's X unit was correctly set to "UNIT_NULL"
1739	SWEEPS	When performing a sweep of multiple FFT Detectors, with FFT averaging turned on, the Sweep would show erroneous "Data timeout" markers (even though the sweep data was being correctly displayed)
1733	SWEEPS	When changing a Sweep Result to "- None -", if the Sweep had already been performed, and the Sweep Trace had a limit line attached, would crash.
1743	TRACE WINDOW	On Windows Vista, when resizing the Trace Window, the Quick Legend moved down the screen.

dScope Series III – Software changes in V1.21i

New features

Issue #	Area	Description
1723	FFT PARAMETERS	Trigger point can now be specified as a negative number of samples (Generator Wavetable trigger only) to allow triggering BEFORE the start of the buffer.

Issues resolved

Issue #	Area	Description
1721	CHANNEL STATUS	When running via Automation, repeated re-opening of Channel Status windows (due to changes in the Digital Inputs) could fail to close old windows, resulting in multiple windows open simultaneously.
1720	SIGNAL GENERATOR	Un-muting digital outputs, when output was a wavetable, produced a DC signal instead of the correct output.

dScope Series III – Software changes in V1.21h

Issues resolved

Issue #	Area	Description
1718	AUTOMATION	When dScope was created via Automation (e.g. from a C++ program), with the hardware switched off, and the "Exit" button was clicked, the dScope software could crash.
1716	AUTOMATION	Calling "Sleep" from a script could return before the specified number of milliseconds had elapsed.
1712	DETECTORS	CT and FFT Detectors now correctly calculate SMPTE/DIN IMD for sidebands either side of the high frequency tone.
1719	TRACE WINDOW	FFT Response Traces (created from multi-tone) did not correctly update on new FFT if transformations turned on (introduced in V1.21g).
1717	TRACE WINDOW	FFT Response (multi-tone) Traces could incorrectly share Y scales after loading from a Configuration.
1711	TRACE WINDOW	"Copy to clipboard" from Trace window only exported a single channel, if currently selected Trace was on channel A and both channels were being drawn to the same view.

dScope Series III – Software changes in V1.21g

Issues resolved

Issue #	Area	Description
1710	AUTOMATION	When dScope was running a script containing a ScriptDlg control, the ScriptDlg could fail to respond to button presses.
1704	AUTOMATION	Repeated running of scripts (particularly FFT Detector Calculation scripts) leaked memory.
1703	AUTOMATION	dS3Const.h and dS3Const.bas (used for automation) now correctly contain all possible dScope properties.
1706	DS-NET	ClearChannels on I/O Switcher could fail with some Channel array setups.
1708	IMPULSE RESPONSE	When impulse response window function details are changed from a script, the FFT was not recalculated.
1698	READINGS	Readings were not updated correctly when the Digital Input went from locked to unlocked.
1701	SCRIPTDLG	ScriptDlg's "BrowsePath" property was not setting folder correctly if a file name was not specified.
1705	TRACE WINDOW	If a Sweep Trace had breached its limits, the Event Manager processed the limit when the FFT triggered.
1700	TRACE WINDOW	Drawing multiple filter Traces on the Trace window, when input frequency was not steady, could slow down dScope and make the user interface unresponsive.
1699	TRACE WINDOW	List of marks was incorrectly calculating Sum of harmonics for FFT Traces.

dScope Series III – Software changes in V1.21f

Issues resolved

Issue #	Area	Description
1694	CHANNEL STATUS	Changing input channel status CRC did not immediately update the display.
1679	CONFIGURATIONS	Occasional Configurations saved with older versions crashed on loading.
1669	CT DETECTOR	Printing of CT Detector showed "Channel A" text against channel B's value.
1681	FFT DETECTOR	If an FFT Detector is set up with a brick wall high-pass or low-pass filter at a high frequency, and the sample rate is changed to make these frequencies beyond the nyquist, then the software could crash.
1672	FFT PARAMETERS	When switching form Analogue Inputs "Generator" (back-to-back) to "Balanced/Unbalanced" (cables), triggering from generator wavetable gave an erroneous delay in the trigger point.
1682	MULTITONES	Calculation of Gain in FFT Detector multi-tone scripts was incorrect if D/A Line-up was different on the Generator and Analyzer (Note: may require multi-tone scripts to be regenerated)
1687	SCRIPTDLG	ScriptDlg control intercepted events fired from software to script, so script never received the events (Fix requires ScriptDlg V0.41 or above)
1668	SIGNAL GENERATOR	Setting square wave polarity via Automation did not correctly update the display (polarity of signal WAS correctly changed)
1693	SOUNDCARD INPUTS	DC Block filter was not correctly applied when analysing soundcard inputs.
1676	SOUNDCARD OUTPUTS	Setting Soundcard Output sample rate from a Script failed.
1674	SWEEP DATA TABLE	Entry of some values in sweep data table were not correctly recognized - the entry box did not open on the following line, and the last value in the table was not saved.
1666	SWEEPS	"Show Range" on Sense fields of Sweep Setup panel crashed the software.
1667	SWEEPS	Setting Sense values from a script always failed, saying that value entered was invalid.
1689	TRACE WINDOW	Exporting Trace window for channel A exported both channels, if both channels were being viewed on the same Graph.
1685	TRACE WINDOW	Clicking on a Trace did not make it current, if the current Trace was on the other channel and had similar data (i.e. was drawn at the same point on the screen).
1695	TRACE WINDOW	Limit line breach was not recognised, when limit was applied to transformation of FFT of impulse response.
1691	TRACE WINDOW	Frequency correction was not showing correct frequencies on FFT Trace when input sample rate was lower than output sample rate.
1675	TRACE WINDOW	Setting Trace Y unit to dBSPL was erroneously disallowed.

dScope Series III – Software changes in V1.21e

Issues resolved

Issue #	Area	Description

1664	AUTOMATION	When two channels had signals that took significantly different times to settle (e.g. one muted and the other un-muted), the automation interface could return values when they had not properly settled.
1665	CHANNEL ARRAYS	When toggling channels on or off on a stereo Channel Array, display could sometimes fail to update correctly. Occasionally dScope would crash under these conditions.
1660	DIGITAL OUTPUTS	After loading a Configuration with an external Digital Output Ref Sync, dScope's Digital Outputs could generate a frame rate with a large number of PPM (at the limit of the range for that frame rate)
1657	IMPULSE RESPONSE	If impulse response was turned on, averaging of FFT buffers "once" did not work correctly.
1658	INSTALLATION	On Windows 2000, installing V1.21x over V1.11x caused "Quick tour" to be set as the startup script.
1663	READINGS	Limit lines on a Reading's bar graph did not redraw when limits were changed from a script.
1654	SCRIPTDLG	ScriptDlg failed to respond to slider events, if slider was vertical
1656	TRACE WINDOW	When editing impulse response Window function, could fail to register a change of bin if the Trigger point was not "Start of buffer".
1655	TRACE WINDOW	When trigger point was not "Start of buffer", drawing of impulse window in "editing" mode could get out of sync with the actual data.

dScope Series III – Software changes in V1.21d

Issues resolved

Issue #	Area	Description
1652	FFT DETECTOR	Failed to read FFT Detector from script, if trigger had been turned off.
1653	FFT PARAMETERS	Changing trigger point from Start of buffer to End of buffer caused Scope Trace to redraw incorrectly, and could crash (if "Measure relative to trigger point" option turned on).
1651	TRACE WINDOW	Loading Configurations with Limit Lines (saved in V1.01a) could crash if Limit Line's X unit had not been correctly saved.

dScope Series III – Software changes in V1.21c

Issues resolved

Issue #	Area	Description
1644	ANALOGUE INPUTS	Analogue compensation filter now correctly removed when Analogue Inputs are DC-coupled.
1648	CHANNEL STATUS	Setting Channel Status bytes via Automation failed, and gave error message that it could not set RECEIVED Channel Status.
1649	FFT DETECTOR	Occasional reading of values from FFT Detectors in scripts or Sweeps could fail with a "Data timeout" ("D" on a Sweep).

1646	IMPULSE RESPONSE	Impulse response parameters are now correctly stored and recalled with Configurations.
1643	SWEEPS	Changing Channel Array Start or End Channel on the Outer Source fails when changed from the Sweep Setup panel.

dScope Series III – Software changes in V1.21b

Issues resolved

Issue #	Area	Description
1635	CT DETECTOR	CT Detector's "Gain" reading was 6dB low in "unbalanced" mode. Also affected FFT Detector and FFT Response Trace.
1634	FFT DETECTORS	Accessing FFT Detectors from a script, if FFT Detectors were running Calculation scripts (e.g. from a multi-tone), could fail.
1637	SIGNAL GENERATOR	Analogue twin-tone output amplitude was D/A line-up dependent.
1638	SWEEPS	Some sweeps, where Result was plotted on X axis (e.g. Distortion vs Power) did not display the Trace until the Sweep had finished.
1636	VSIO ADAPTER	"Receive" field on VSIO Adapter control panel was not updated when SPI data was received.

dScope Series III – Software changes in V1.21a

New features

Issue #	Area	Description
1625	TRACE WINDOW	Graph Print/Export setup window now indicates which channels will be exported.

Issues resolved

Issue #	Area	Description
1623	AES17	Configurations for AES17 "Low level noise modulation" tests were saved with links to invalid FFT Detector weighting filters.
1627	AUTOMATION	OLE Automation interface out of sync with dScope executable when called via external interface (e.g. scripting). Affected mainly Signal Generator channel B.
1619	FFT PARAMETERS	When selecting "Trigger mode" using mouse, the selection clicked back to the current setting and could be difficult to select

		a new entry.
1629	MONITOR OUTPUTS	Monitor Outputs Headphones/Speaker option (on panel only) was not updated when changed via Automation.
1620	MULTI-TONE ENTRY	"Browse" boxes for .wfm and .dss files were swapped on multi-tone entry window.
1628	READINGS	Calling GetFirstReadingFromResult could fail when called for "Selected" channel.
1633	SIGNAL GENERATOR	Amplitude Step mode was incorrectly initialised on Configuration load, so that changing to Ratio and then back to Offset gives a different value to the one that was there originally.
1632	SIGNAL GENERATOR	Signal Generator amplitude unit could get out of sync with the amplitude, after loading a user wavetable and changing the amplitude unit.
1622	SIGNAL GENERATOR	Level of user wavetable (e.g. multi-tone signal) entered in dBr could be output at incorrect level with certain combinations of Reference Amplitude and D/A line-up.
1631	SWEEPS	When sensed sweeps were started via Automation, the script did not always get "Sense" events.
1626	TRACE WINDOW	If a set of data was FFT'd, and this coincided with the Digital Input going unlocked, the Trace window could crash while updating the FFT Trace.
1624	TRACE WINDOW	Export preview of Trace window with all Traces on the same view only shows channel A Trace (actual export itself was correct)
1621	TRACE WINDOW	Some older Configurations could cause Trace scales to get incorrectly reset to their defaults (particularly for multi-tone or FFT traces).

dScope Series III – Software changes in V1.21

Issues resolved

Issue #	Area	Description
1616	SWEEPS	Could crash when starting a sweep, under certain specific conditions where Sweep Trace was not yet fully initialised.

dScope Series III – Software changes in V1.20b

New features

Issue #	Area	Description
1591	ANALYZER	New unit added for generator-relative and channel-relative, showing gain in terms of Analyzer unit for a given Generator level (e.g. dBSPL / V(rms))
1614	DIGITAL INPUTS	Digital Inputs are no longer flagged as unlocked, if frame rate is more than 2000ppm from one of the standard rates.

1529	FFT DETECTOR	FFT Detector scripts can now specify "nth" harmonic, rather than just 2nd to 4th harmonics.
989	FFT DETECTOR	New FFT Detector band-pass/band-reject mode, "fundamental + all harmonics", to allow measurement of Noise in the presence of signal.
1613	FFT PARAMETERS	New Window function added to remove discontinuities caused by playing the generator function n times.
1592	GENERATOR/ ANALYZER	New fields on Generator and Analyzer for entry of gain. Allows amplitude to be entered post-amplifier and mic pre-amp gain to be taken into account.
1584	IMPULSE RESPONSE	Invalid frequencies on FFT of impulse response (due to selected window function) are now shown by a dotted line.
1576	IMPULSE RESPONSE	Impulse response can now be displayed in relative or "absolute" units.
1612	MISC	New Option to wait for hardware to reconnect, if unplugged..
1615	SIGNAL GENERATOR	Bin centres function can now be limited to a specific frequency range, and can be generated with a pink frequency response and with different phases
1602	SIGNAL GENERATOR	New Option added to specify load impedance of EUT as ref impedance, and generate output amplitude across this load.
1566	TRACE WINDOW	Current Trace can now be displayed as a bolder line
1372	TRACE WINDOW	Trace window can now be exported in different formats - BMP, JPG, GIF, TIFF, PNG as well as EMF.

Issues resolved

Issue #	Area	Description
1595	CHANNEL STATUS	If a field was changed that affects a Channel Status "auto" field, the CRC was not correctly updated on screen.
1601	CT DETECTOR	If the default Signal Analyzer Weighting was changed, and the CT Detector was open and the weighting set to "Default", the software crashed.
1515	DIGITAL OUTPUTS	Digital Generator locked to video input if connected, even if video not selected as the reference.
1597	EVENT MANAGER	Event names in Event Manager for Reading and Trace limit breaches now correctly show details of the Reading or Trace.
1593	FFT DETECTOR	Reading values from Sample buffer, from a script, gave incorrect values.
1600	SIGNAL ANALYZER	Entry of a low level in dBu for dBSPL level (e.g. -32dBu) caused Results to display as invalid values.
1596	SIGNAL GENERATOR	When loading a Configuration with "Burst" selected, the burst durations could fail to load correctly
1590	SOUNDCARD OUTPUTS	Soundcards did not output a signal when sample rate of 8k or 11k025 were selected.

dScope Series III – Software changes in V1.20a

Issues resolved

Issue #	Area	Description
1580	DIGITAL INPUTS	DI Loopback options now correctly restore when Configuration loaded, and correctly display in Script Edit window.
1583	MISC	No longer crashes if click on Main window's "Close" button in Print Preview mode.
1569	READINGS	Changing channel on a Reading did not correctly update the Reading's value
1585	SLIDERS	The presence of a Slider in a Configuration could occasionally cause a subsequently-loaded Configuration to crash.
1571	SWEEP SETTLING	Change to number of results on Sweep settling panel was ignored, if entered by typing rather than using the up/down arrows.
1575	SWEEPS	If Signal Generator is un-muted for the duration of a Sweep, there is a short period of the current Generator signal at the beginning and end of the sweep.
1586	TRACE WINDOW	Loading Configuration with FFT trigger OFF could get its buffer overwritten by a previous trigger.
1578	TRACE WINDOW	Impulse response bar and Limit Line bar on Trace Window were not correctly moved/closed across different pages.
1574	TRACE WINDOW	When editing a Trace's name in the Print Legend, if the mouse was clicked on another Trace without using <Enter> to shut the box, the wrong Trace's name was edited.
1570	VSIO ADAPTER	Changing sub-channels per wire on VSIO adapter control panel did not correctly show/hide the generator routing controls

dScope Series III – Software changes in V1.20

New features

Issue #	Area	Description
1549	ACOUSTICS	dB SPL measurement unit.
1334	ACOUSTICS	Entry of weighting filter (e.g. for microphone calibration) on the FFT parameters, to be applied to the FFT Trace and all FFT Detectors
953	ACOUSTICS	Impulse Response calculation
1550	ANALOGUE I/O	Analogue I/O can now sample at 48kHz as well as 96kHz and 192kHz, to increase LF resolution of FFT analysis
1530	ANALYZER	C-weighting filter implemented for CT Detector and FFT Detectors
1485	APPLICATIONS	Generation of encoded transport streams for testing of surround sound decoders (requires additional download)
1567	DIGITAL I/O	192kHz sample rate support on AES3 and S/PDIF digital audio interfaces
585	DIGITAL INPUTS	Addition of Digital Loopback option allows measurement of digital delay through a device
1452	DIGITAL OUTPUTS	Scripts now have access to actual frame rates for DI frame rate and ref sync, as well as nearest standard frame rate
1477	DS-NET	VSIO Adapters can now be reset or put into standby from the interface
1399	DS-NET	Switcher Channel Arrays can now be set to be "exclusively on" only, preventing multiple channels being switched at once
1562	FFT DETECTORS	Scripts now have access to the entire FFT buffer in a single script command for greater efficiency
1200	FFT PARAMETERS	FFT averaging can now be a "rolling" average
711	FFT PARAMETERS	Phase information now available to scripts
1551	FFT PARAMETERS	Trigger can now fire on wrapping of a wavetable function in the Signal Generator

1525	FFT PARAMETERS	dScope sample buffers can now be imported and exported. Exported file is in WAV file format.
1468	LIMIT TABLES	Limit line scripts can now create multiple limit lines.
1483	LIMIT TABLES	Limit lines can now be created from ANY script. (Note that if the script is not a limit table script then the "LMT_SaveTable" function must be used to save the limit table)
777	MISC	Toolbar buttons included for all panels and important operations.
1516	MONITOR OUTPUTS	Monitor Outputs now have clip flags for analyzer gain ranging
1267	PC AUDIO	Generation and analysis using Windows sound devices, including multi-channel device support
1507	SCRIPT EDITOR	Script Edit window now has a list of recently-edited scripts.
1482	SCRIPT EDITOR	Script debugger allows breakpoints, single stepping, examination/setting of variables etc
1386	SCRIPTDLG	ScriptDlg now allows display of a file/folder selection dialogue box
1568	SCRIPTING	Multiple scripts can now be run simultaneously
553	SIGNAL GENERATOR	User waveform on Signal Generator can now play a set number of times, as well as continuously
1204	SIGNAL GENERATOR	"Phase invert" can now be set independently for channel B, even when channels tied.
1565	SIGNAL GENERATOR	New "Bin centres" function in Signal Generator (allows instantaneous frequency response using FFT of same length and Rectangular Window function)
5	SIGNAL GENERATOR	New "Swept Sine" (chirp) function in Signal Generator
1371	SWEEPS	Sweep setup now has the ability to run a script at every sweep step.
1176	SWEEPS	New Trace transform added - "Relative" to a Golden Trace
1548	TRACE WINDOW	Traces can now be scrolled using the current position lines as scroll bars.
634	USER BAR	Hot keys now available for User bar buttons
1467	WARNINGS	New non-intrusive warning system gives the user warning of potential set-up problems

Issues resolved

Issue #	Area	Description
1480	DS-NET	When changing "Channel Array exclusive" on or off, the updating of the controls did not always work properly when both buses were used in the array.
1479	DS-NET	When loading a Channel Array into the control panel, could fail to correctly update the devices and gave a "Error contacting device(s)" message.
3	FFT PARAMETERS	Time domain averaging to reduce the effects of random noise on measurements
1558	MISC	dScope now recognises \ (backslash) as well as / (forward slash) in folder names
287	SWEEPS	Graph Title entry no longer interrupts a sweep
1458	TRACE WINDOW	Exporting list of Trace values speeded up for large numbers of points, and a progress indicator added.
1231	TRACE WINDOW	FFT now correctly shows harmonics even if current input frequency is different to the fundamental frequency used when buffer was captured.

dScope Series III – Software changes in V1.11g

Issue #	Area	Description
1608	FFT DETECTOR	FFT Detector Calculation scripts now correctly set script values in dB (e.g. SINAD script)
1610	LIMIT FILES	Fixed problems loading some limit files created from older software versions ("an attempt was made to access an unnamed file past its end").
1609	MISC	On some units, dScope can occasionally lose contact with the hardware

dScope Series III – Software changes in V1.11f

Issue #	Area	Description
1598	ANALOGUE OUTPUTS	Slight changes in Signal Generator level between gain ranges (e.g. 12.001dBu to 12.000dBu) could cause spikes on the Analogue Outputs.
1594	FFT DETECTOR	If digital input is a DC signal only (i.e. 0Hz), and FFT Detector is set to "all harmonics", then Detector could crash.
1560	HARDWARE	Analogue outputs on startup could output noise very briefly
1556	SWEEPS	Starting a sweep with "Append" on, but X unit changed, could leave copied sweep with its unit overwritten by the X unit of the new sweep.
1557	TRACE WINDOW	FFT Response Traces with "Sum bins" transformations could fail to export.

dScope Series III – Software changes in V1.11e

Issue #	Area	Description
1543	DS-NET	"Balance" on multiple-switcher Channel Arrays could take a long time to set all switchers.
1545	DIGITAL INPUTS	When looped back-to-back without cables, AES receiver on some units could occasionally fail to lock to valid AES signal.
1546	TRACE WINDOW	Export Trace Values now much faster, and includes progress indicator.
1547	MISC	If started in quick succession, two instances of dScope could start simultaneously, occasionally causing calibration table to become corrupted.

dScope Series III – Software changes in V1.11d

Issue #	Area	Description
1532	CONFIGURATIONS	Configurations can now correctly be saved to UNC path names (e.g. \\pc-name\folder)
1533	CARRIER INPUTS	On some hardware, jitter could flicker momentarily to "-----"
1520	CT DETECTOR	IMD SMPTE/DIN filter generation was incorrect on CT Detector
1531	LIMIT LINES	Limit lines created from "User" or Multi-tone response Traces can now be edited.
1527	MULTI-TONE ENTRY	If an old Configuration was loaded, changing the name of a multi-tone function did not correctly update file names of analysis functions.
1528	MULTI-TONE ENTRY	Selecting "Asynchronous" multi-tone mode now correctly allows selection of different domains for generation and analysis.
1481	TRACE WINDOW	Some printers did not correctly print colour from the Trace window (e.g. colour HP laserjets)
1513	TRACE WINDOW	Automation: TraceWindow.TW_GraphTitle didn't update the Graph Title immediately.
1534	TRACE WINDOW	TRACE_GetXValueAt and TRACE_GetYValueAt automation methods failed if position greater than 32767

dScope Series III – Software changes in V1.11c

Issue #	Area	Description
1508	REGULATION	Entry of "tolerance offset" not allowed correctly on Regulation panel.
1511	TRACE WINDOW	White Traces are now changed to black for exporting
1512	TRACE WINDOW	Export now correctly shows user-defined Trace names on legend, rather than just default names
1518	TRACE WINDOW	When recalling configrations with multiple Traces with limits, scripts could return incorrect Trace IDs for GetNextTraceOfType.

dScope Series III – Software changes in V1.11b

Issue #	Area	Description
1439	EVENT MANAGER	Channel Check event did not register in event log file.
1429	MEMOS	"Memo" feature crashed under Windows Millennium.
1435	MULTI-TONE	When Multi-tone signal generated digitally, and Signal Generator is in "tied" mode, then Gain measurements failed on channel B.
1431	READINGS	Reading Resolution (No. sig figs, decimal places) was not recalled with Configuration.
1425	SIG GENERATOR	Setting Generator "Burst" parameters from a script failed.
1436	SOUNDCARD	dScope software incorrectly re-initialised Soundcard at startup
1433	SWEEPS	Sensed sweeps could crash if the direction of change of sensing changed mid-way through sweep.

1432	SWEEPS	"Sense Frequency" was allowed to be selected for both inner AND outer Sweep source.
1424	SWEEPS	Setting limit from Sweep Y Settings could fail erroneously, and if it did, could subsequently crash the software.
1427	TRACE WINDOW	Default scales for CT residual Trace could be wrong, if unit is %.
1426	TRACE WINDOW	Auto-zooming of Scope Trace could fail, if all data was identical (e.g. all digital 0xFFFFFF Hex)

dScope Series III – Software changes in V1.11

Issue #	Area	Description
1416	CHANNEL STATUS	Channel Status can sometimes show "Consumer" status in a "Professional" window, if Digital Input sample rate changes.
1290	DS-NET	Control Panel and Script interface needed for VSIO Adapter
1409	LIMIT TABLES	Limit tables saved using a script run in V1.10 do not load correctly into Trace Settings dialogue box.
1407	SIGNAL GENERATOR	If Signal Generator amplitude is changed twice in quick succession (e.g. from a Script or Slider), the resulting amplitude can be incorrect (neither the first nor the second amplitude entered).

dScope Series III – Software changes in V1.10

Issue #	Area	Description
8	ANALYZER	Allow high-pass and low-pass frequencies to be set to any frequency.
1211	APPLICATIONS (AES17)	Problems with AES17 max amplitude algorithms if D/A Line-up is +28dBu
1197	APPLICATIONS (AES17)	Need to provide V as well as dBu for AES17 D/A Line-up
1360	AUTOMATION	Add Automation method to return name of the current Configuration.
1275	CHANNEL STATUS	When loading Configuration with "Advanced" Channel Status window, the window does not open.
735	DETECTORS	CT Detector and FFT Detector low-pass filters have slightly different rolloff
1022	DETECTORS	Add AES17 standard filter to list of low-pass filters
1281	DIGITAL INPUTS	Automation property DI_FrameRate returns nearest standard; add new property DI_ActualFrameRate to return actual fs
1257	DIGITAL INPUTS	Automation property DI_ChannelCheckFailedChB crashes dScope
1254	DIGITAL OUTPUTS	DO_Mute Automation property does not work
1322	DIGITAL OUTPUTS	Digital Outputs Dither should work correctly for WAV files.
1193	DIGITAL OUTPUTS	Unplugging BNC wordclock from Reference Input does not register unlocking.
1147	DS-NET	Add Panels for manual control of dS-NET I/O Switcher.
1033	EVENT LOG	Log the actual values of failed Reading events in Event Log file.

1270	FFT DETECTOR	Add recalculation of FFT Detectors and Trace Transformations without recapturing FFT
1255	FFT DETECTOR	Very high frequencies in a signal (around the nyquist) can cause FFT Detector to crash
1186	FFT PARAMETERS	Changing number of FFT points while averaging is in progress should reset the averaging.
1325	FFT PARAMETERS	Threshold value is limited unneccessarily (when set using automation interface)
782	FFT PARAMETERS	Trigger on channel A OR channel B.
1327	GENERAL	Add Startup Wizard to allow easy selection of "default" parameters.
1277	GENERATOR	Signal Generator should start Off, not On
1346	GENERATOR/ ANALYZER	Changing unit of Signal Generator Reference Amplitude doesn't update the Signal Analyzer unit.
1324	MISC	Can show "Failed to write to registry" error message on startup, if user is not a power user or administrator.
691	MISC	Add Sliders to control fields on Generator, particularly Amplitude and Frequency.
1358	OPTIONS	Option to use current file's folder should change to use the LAST USED folder.
1387	OPTIONS	Add "Startup Script" as well as a "Startup Configuration". NOTE: Automation interface of OPT_StartupFile now changed to OPT_StarrtupConfiguration.
1079	READINGS	Allow control over the number of decimal places/significant figures in Readings
1261	READINGS	Readings can occasionally miss peaks when "Peak Hold" values are turned on.
1196	READINGS	Allow Peak Hold values to stop updating if turned off; allows measurement of min/max across multiple channels or devices.
1259	READINGS	Readings can restore wrongly after saved in a Configuration where they are minimized.
1205	REGULATION	Add Regulation
1278	SCRIPT EDITOR	When an "Event" is selected from the tree on thew right-hand-side, it is not formatted when insterted into the script.
1357	SCRIPT EDITOR	Scripts are saved with CR only at end of line; should be saved with CR/LF.
1195	SCRIPT EDITOR	Intercept Ctrl/S in Script Editor so it saves the Script rather than the Configuration.
1381	SCRIPTDLG	Add "ShowHelpTopic" to ScriptDlg, to allow Help topics to appear "On top"
967	SIGNAL ANALYZER	Inter-channel phase can flicker at low analogue input frequencies
1134	SIGNAL ANALYZER	Range of entries of reference amplitude is unnecessarily limited.
1094	SIGNAL GENERATOR	Change "Burst" to have two different-amplitude tones rather than one amplitude and silence.
1319	SIGNAL GENERATOR	Change frequency step to allow steps of less than 1Hz.
1336	SWEEPS	Add the ability to auto-zoom X and Y axis during or after a Sweep.
1367	SWEEPS	Need a simple way of entering Sweep Data tables without requiring a script to be written.
896	SWEEPS	Add the ability to nest sweeps
1146	SWEEPS	Add the ability to plot Results (Power, etc) on the X axis of a Sweep.
1344	SWEEPS	Sweeping a twintone signal doesn't correctly round the frequencies as for manual entry.
1312	SWEEPS	Y axis is restricted on sweep of inter-channel delay
1299	SWEEPS	
1217	SWEEPS	Add option to "optimize for speed" - turn of FFT and auto-ranging if not needed.
1341	SWEEPS/ SCRIPTS	dScope crashes if stopping a sweep of FFT Detectors from a script while trigger is off
1209	SWEEPS/SWITCHERS	Add control of switcher channels as a Sweep Source
1256	SWITCHERS	Add automation method to turn ON all channels in a Switcher Channel Array
1326	TRACE WINDOW	Llimits of each Trace's Y scale needs reconsidering; Zooming/moving can sometimes be limited to unreasonable values.
1247	TRACE WINDOW	Start logged FFT Traces at 10Hz, not 1Hz.

1345	TRACE WINDOW	When exporting, Scales should be resized with screen resolution.
1347	TRACE WINDOW	When saving Traces, default the file name to the current Trace name.
1328	TRACE WINDOW	Auto-zooming of Traces does not use Transformed data.
1294	TRACE WINDOW	Event details are not re-instated when a limit line is edited.
1378	TRACE WINDOW	Trace file names (especially for Limit Lines) are not saved with Configurations.
1282	TRACE WINDOW	If the list of trace marks is turned OFF on the Print.Export setup window, they are still listed on the printed legend.
622	TRACE WINDOW	Allow copies of Traces to cycle through colours, rather than always being grey
548	TRACE WINDOW	"Add Trace" dialogue box should allow you to add the same Trace to both channels at once.
115	TRACE WINDOW	Add more automation properties and methods to the Trace Window
1271	USER BITS	Transparency check for User Bits

dScope Series III – Software changes in V1.01b

Issue #	Area	Description
1248	TRACE WINDOW	When trying to print or export the Trace Window, fails to print and says that you need to install a printer first. (introduced in V1.01a)

dScope Series III – Software changes in V1.01a

The following is a list of issues resolved in the dScope Series III software release, version 1.01a.

Issue #	Area	Description
1237	DIGITAL INPUTS	DI Termination not updated on display after swiching to TOSLINK and back to XLR.
1228	EVENT MANAGER	When loading very old configurations, the Channel Check events in the Event Manager can be missing from the list.
1227	FFT DETECTOR	When measuring IMD CCIF with an FFT Detector, measurements can revert to 0dB if one of the generator frequencies is changed, but not the offset between the frequencies.
1224	READINGS	Reading channel doesn't always restore correctly when a Configuration is loaded.
1233	SCRIPT EDIT WINDOW	Example scripts copied from Help file and pasted into Script Editor contain invalid charcaters and won't run.
1234	SIGNAL GENERATOR	Loading 96/192kHz WAV files into Signal Generator cause stack overflow error
1226	SIGNAL GENERATOR	When enter invalid Signal Generator amplitude, after warning message, cannot enter a different amplitude.
1236	SWEEPS	Sweep data tables of generator amplitude in dBr, going backwards, do not work correctly
1235	TRACE WINDOW	"User" traces created from scripts appear bold when displayed as Log X

1225	TRACE WINDOW	Loading configuration should restore current trace as it was when saved.

dScope Series III – Software changes in V1.01

Issue #	Area	Description
988	ANALOGUE INPUTS	THD+N at some amplitudes could be improved
1104	ANALYZER	Signal Analyzer can occasionally not detect unlocked DI.
1024	AUTOMATION	Sweep Y Settings need to be available to scripts before sweep is started.
1158	AUTOMATION	FFT Detectors need their own Script functions to access Readings
765	DIGITAL OUTPUTS	Need to be able to generate Hex 0x800000 at Digital Outputs
1060	DISPLAY	On Windows XP, Trace Window can show funny minimize/maximize buttons.
1170	EXPORT	Sometimes Trace colours on exported graph do not match Export Preview colours.
1169	EXPORT	Graph export can fail if the folder it is being exported to does not exist.
1109	EXPORT	Comment can drop off the bottom of exported EMF file.
912	FFT DETECTOR	Add IMD SMPTE/DIN calculation for FFT Detectors.
1183	FFT DETECTOR	FFT Detector may unnecessarily calculate BP/BR filters.
1166	FFT DETECTOR/ SWEEPS	When change relativity of FFT Detector, if it's set up as a Sweep Result, its Y unit can be lost.
1210	GENERATOR	Sweeping generator amplitude can cause momentary gain increases which can cause analyzer to take longer to settle.
1180	GENERATOR	Implement generation of WAV files as user-defined wavetables (up to 512k samples)
437	GENERATOR	Multi-tone generation utility needs to allow user to specify frequencies of individual tones.
1117	GENERATOR/ ANALYZER	Allow specification of Reference Amplitude for each channel separately.
1150	GENERATOR/ ANALYZER	Ref Impedance needs to allow double-precision entry.
1145	GRAPH EXPORT	Exported Traces have stroke width of 0 when imported into Adobe Illustrator, and are invisible.
1171	HELP	"Help" window stays always on top of dScope Window - should go to background when dScope application is clicked on.
1081	I/O SWITCHER	Script commands needed to read DC voltage from I/O switcher
1214	INSTALLATION	dScope will not run correctly when run as a restricted user (Cannot write settings to some parts of the registry).
772	LIMIT LINES	Allow list of Trace Values to be editable for limit lines.
1126	MARKS	When "relative" mode is selected for the Trace Window cursor, "List Harmonics" functions incorrectly.
1004	MISC	When you use "MsgBoxWithTimeOut" in conjunction with a ScriptDlg with the same title as the message box, the ScriptDlg can close at the end of the time out instead of the message box.
1136	MISC	Configurations need "Save" to simply overwrite current file, and "Save As" to specify a new file name.
372	MISC	Allow mouse wheel to adjust the last-clicked object (Frequency, amplitude etc)
1132	MISC	Changing settings value then clicking on another window (without pressing Tab or Return first) sometimes ignores the edit.
1174	MULTI-TONES	Multi-tone traces should default to different colours, not all to yellow.

1137	MULTI-TONES	When change multi-tone name, not all file names are updated if more than one analysis function has the same name.
1162	MULTI-TONES	When multi-tone helper is about to overwrite existing files, it should warn the user.
1161	MULTI-TONES	Sometimes file-name is not automatically changed when multi-tone name is altered.
1173	MULTI-TONES	Multi-tone helper window needs a simple way of generating and analysing asynchronous multi-tones, to allow cross-domain measurements.
1129	MULTI-TONES	Need ability to specify all filters for individual analysis functions on Multi-tone Generation helper window.
642	OPTIONS	Options dialog needs to let user specify default paths for configurations, scripts etc.
1142	OPTIONS	Need to be able to specify a default folder for Graph Exports.
1155	PRINT	When printing Trace Window, the Y axis unit and some lines on the legend can be lost for certain combinations of selections.
1135	READINGS	Sometimes recalling a Reading in a configuration does not recall the correct unit.
369	READINGS	Readings need "peak hold" values (min and max)
1165	SCRIPT EDIT WINDOW	Script Edit Window needs to show current line number, and have "Go To Line .." capability.
383	SCRIPT EDIT WINDOW	Repeatedly clicking "Run Script" from Script Edit window can cause dScope to crash
1054	SCRIPTDLG	If Script is stopped manually, ScriptDlg can fail to close down.
947	SCRIPTING/HELP	Need Scripting function to allow displaying of help topic in any help file.
166	SETTLING	Sweep Settling options need to be split up to give settlings that are more specific to individual readings.
1143	SIGNAL GENERATOR	Duty cycle doesn’t always change correctly on change of function.
1027	SWEEPS	X scale of time sweeps needs to display "s" or "secs" as unit.
1114	SWEEPS	Some changes to relativity can lead to a Trace's scale being displayed in log dBu.
675	TRACE WINDOW	Trace zoom needs an "Undo" option
636	TRACE WINDOW	FFT needs to display linearly if linear units are selected.
540	TRACE WINDOW	Print Preview/Export Preview scale colours can be incorrect.
857	TRACE WINDOW	Allow Filter traces to be displayed in dB or %.
952	TRACE WINDOW	Ability to perform Trace Transform automatically when trace data is updated (Normalize, smooth etc)
1012	TRACE WINDOW	If Trace Window is showing a Filter Trace, display can go crazy if input frequency is continually changing (for example, with a multi-tone signal).
1070	TRACE WINDOW	Script interface needs to be able to read a "Limit breached" flag for all Traces.
1071	TRACE WINDOW	Scripting needs access to individual points of Limit Lines.
1110	TRACE WINDOW	Export of traces with log Y scale can sometimes draw extra graticule lines outside the edge of the graph
1113	TRACE WINDOW	When log Trace X scale in V, cannot go below 10mV(rms)
1115	TRACE WINDOW	Exported traces can sometimes draw beyond the edge of the graticule.
1157	TRACE WINDOW	When loading a Configuration with CT Traces, the Traces' Y scales can be wrongly overwritten.
1163	TRACE WINDOW	When editing a drawn Limit Line, the limit line can disappear
1111	TRACE WINDOW	Can get into a situation where Trace X scales are split, even when Options are set to gang Trace channels.

dScope Series III – Software changes in V1.00a

Issue #	Area	Description
821	ANALOGUE INPUTS	Analogue manual range can get into state where it's overridden but is updating, so user can't make new manual entry.
19	CARRIER DISPLAY	Carrier Display can stop collecting data at <1ns resolution.
1061	CONFIGURATIONS	"Auto-save" of settings on exit doesn't save FFT Detectors.
1053	CONFIGURATIONS	Some configurations with Limit Lines saved in V1.00 can crash on re-loading.
1010	DISPLAY	MRU list, if listing >10 files, numbers them 1-9 then 0-6 again.
737	DISPLAY	When using large (200%) fonts, Multitone helper window is misformatted.
49	DISPLAY	FFT display could be speeded up by better management of Window updating.
1074	EVENT MANAGER	Event Log files of around 1MB take ages to load.
203	FFT DETECTOR	If an FFT Detector calculation script fails, make sure it doesn't try to run again.
1040	HELP	Some "See Also" links don't work between Scripting Manual and Operations Manual
1063	MULTI-TONE	Multi-tone TD+N relative to a frequency on same channel can give incorrect results (high % values).
1059	READINGS	Carrier amplitude Reading limit cannot be set to more than 5V.
797	SCRIPT EDIT WINDOW	When Script Edit window is closed, Find/Replace dialog doesn't close if open.
1025	SCRIPT EDIT WINDOW	Dragging methods with long names into Script Edit window doesn't format them properly.
1056	SIGNAL GENERATOR	Changing Signal Generator amplitude immediately after creating Multi-tone doesn’t always update channel B's amplitude.
1069	SIGNAL GENERATOR	Entering a twintone in analogue units, where the equivalent digital amplitude is greater than the line-up, causes the twintone to be clipped.
1057	SWEEPS	It is possible to perform a sweep without it appearing on the legend, if change channel selection/Append etc in certain order between sweeping.
836	SWEEPS	FFT Detector sweeps take ages to time out
1062	SWEEPS	Sweeps of jitter amplitude can give fluctuating results due to incorrect settling.
1048	TRACE WINDOW	Mark Harmonics option can list frequencies beyond the nyquist.
1058	TRACE WINDOW	On sweeps of relative amplitudes, shown in %, un-zooming without zooming in first causes silly scale zooming.
1065	TRACE WINDOW	Changing Trace Settings of multi-tone response trace crashes if no hardware is attached.
227	TRACE WINDOW	When CT Detector trace is added, it should auto-zoom its scales to be sensible for the current CT Detector function.
1067	TRACE WINDOW	Multi-tone response trace scale linking (if "Ganging Y scales") needs rethinking.
1072	TRACE WINDOW	Auto-zooming of Multi-tone frequency response in dB limits upper edge.
1019	TRACE WINDOW	If showing all traces on same view, "Print one channel per page" button needs disabling.