



Measurement Management Software

# Introducing the premier version of SoftPlot - Test automation and documentation for RF Engineers, in one easy-to-use package

Network Analyzer

Spectrum Analyzer

Modulation Analyzer

Oscilloscope

GPIB, RS-232 or LAN Connectivity

Documentation and Presentations

Circuit and System Simulation

Spreadsheets and Maths software

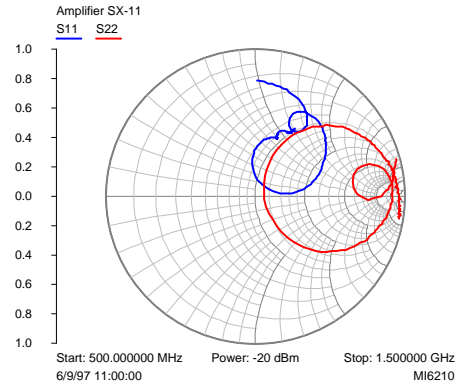
Automation links to external Software

Test automation scripts:-

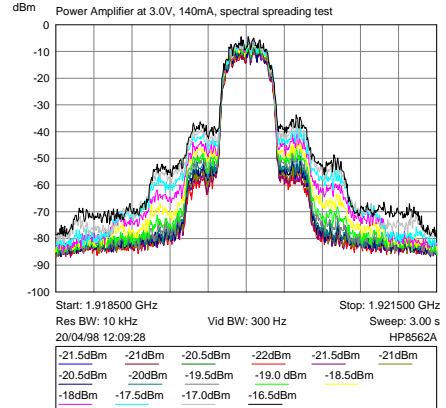
- Simplify equipment configuration
- Replay test sequences
- Interactive graphing of measurements

Export to...

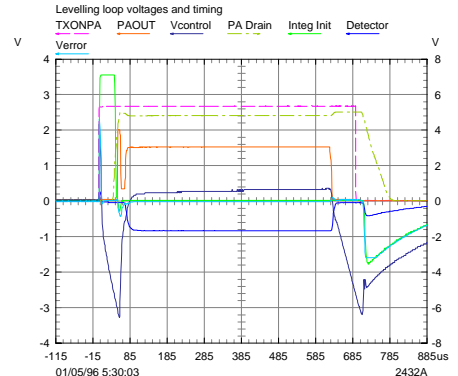
## From your Network Analyzer...



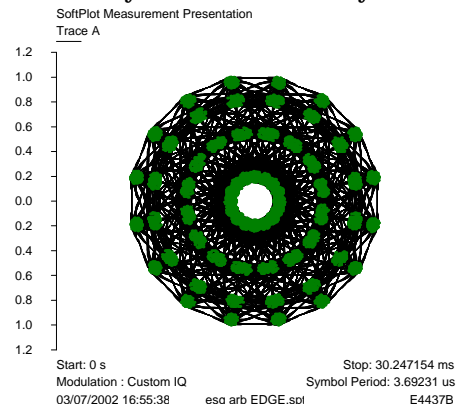
## or your Spectrum Analyzer



## From your Oscilloscope...



## or your Modulation Analyzer



**SoftPlot +Plus+ Measurement Management** software produces professional graphs and data files from test equipment at the click of a button. No programming effort is required. Simply hook up your **Network Analyzer**, **Spectrum Analyzer**, **Oscilloscope** or **Modulation Analyzer** to your PC using GPIB, RS-232 or LAN, and you have instant access to all the trace data you need.

### Presentation Quality Graphics

**SoftPlot +Plus+** gives you sharp, scaleable, vector - based graphics to paste into your document or presentation. This is because trace data from the instrument is processed into the required display format. Choose from a wide range of graph types, including log and linear cartesian, modulation, antenna, polar and Smith charts. Apply markers and limit lines to clarify the information in your measurement. Enter measurement notes below the graph to document your test set-up, or to record the changes made in a family of traces.

**SoftPlot +Plus+** exports graphics as a Windows Metafile or Bitmap (\*.EMF, \*.WMF, \*.BMP, \*.JPG, \*.TIF, \*.PNG), but most important is the ability to embed or link your measurements using OLE (Object Linking and Embedding). This retains access to the original measurement data as well as providing graphics for your document.

### Automated Measurements with Scripting

A fully-featured scripting editor built into **SoftPlot +Plus+** allows you to automate measurement sequences, including direct GPIB control of instruments and full control of operations within SoftPlot itself. Perform marker maths; or data logging from DVMS, power meters, etc; Power-up PSUs in a specific sequence; or create antenna patterns using these powerful capabilities. **SoftPlot +Plus+** also has a COM and a DDE server built into it, which permits control it from other programming environments.

### Full Support for Industry Standard CAD Software

Bidirectional file exchange is supported for a wide range of circuit and system simulators, including Microwave Office (™ AWR) and ADS (™ Agilent). Convert manufacturers' data to match your simulator, as well as creating files from your own measurements. S-Parameter data can be read and written in touchstone format. **SoftPlot +Plus+** has 100 trace stores, and each can have fully independent X-Axis coordinates. This permits 10x10 S-parameters to be handled with ease. Read / write capability is also provided for comma-delimited (CSV) and tab-delimited (TXT and PRN) text files, allowing exchange with spreadsheets, word processors and mathematical tools such as MathCad and MatLab.

### New in SoftPlot +Plus+ Version 8.0:

Customisable toolbars; RTF Measurement Notes pad; Support for Prologix GPIB interfaces; 1/dt marker pairs for DSO measurements; Selective Export of data to output files; new and updated instrument drivers, and more...

**Capture your measurements with SoftPlot and release their information potential.**

## Instruments Supported

## Hardware Requirements

<b>Network Analyzers</b>	<p><b>Advantest</b> R3753H, R3764/65/66/67H, R3765/67G series  <b>Agilent</b> E5061/62/70/71 ENA, E835XA/B, E836XA/B, N52XXA PNA  <b>Anritsu</b> Wiltron 360, 371xx/372xx/373xx, MS3401A/B, MS462XX, MS4630B, VectorStar MS4640A, Site Master SxxxX/B series, 54xxA/541xxA/56100A series scalar analyzers  <b>Hewlett - Packard</b> 3577A, 3589A, 8510, 8711-14B/C, 8751/52/53, 8720 series, E5100A/B; 4195, 4395A, 4396A/B Net/Spect Analyzer 4191, 4192A, 4194A, 4284A, 4291A/B, 4294A, E4991 8756, 8757 Scalar Analyzer, 8903A/B Audio Analyzer 4145A/B, 4155/56 Semiconductor Param. Analyzers 4280 Capacitance Meter; 4352B VCO / PLL Signal Analyzer  <b>Marconi Instruments / IFR / Aeroflex</b> 6210, 6200, 6800 MW Test Sets  <b>Rohde &amp; Schwarz</b> ZVA/ZVB/ZVT series, ZVL, ZVR/ZVC/ZVM/ZVK  <b>Wayne Kerr</b> 6500B Impedance Analyzer  <b>Wiltron</b> 560A / 6600 Scalar Analyzer system</p>
<b>Spectrum Analyzers</b>	<p><b>Advantest</b> R3131/32/62, R3261/3361, R3265/71, R3267/73, R3463/65, R3671/81, U3641, U3751, U3771, U3772, U4941, R4131 series, TR4135  <b>Agilent / HP</b> CSA, E44XXA/B ESA-E, ESA-L, PSA, E7400, EXA, MXA, PXA, L1500A; 8960 Wireless Comms Test Set (GSM), 89600, E5052A  <b>Ando</b> AQ6317 Optical Spectrum Analyzer  <b>Anritsu</b> MS2602, MS2650/60, MS2380, MS2702, MS2802, MS612A MS2711A/B/D, MS2721A, MT8220, MT8801B Radio Comms Analyzer MS9030A (MV02) Optical Spectrum Analyzer  <b>Hewlett - Packard</b> 3582, 3585, 3588/89A, 8560/1/2/3/4/5, 8566A/B, 8568A/B, 8569B, 8590 series, 70000 series, 3561A, 3562A, 35660, 35665, 35670A; 4195, 4395A, 4396A/B 8542E / 8546A, HP8594EM EMI Receiver; 8920/22 Comms Test Set  <b>IFR/Aeroflex</b> AN940, 2394, 2395, 2397, 2398, 2399/A/B/C, 3250, 3280  <b>LG Precision</b> SA-9270 / SA-7270  <b>Marconi Instruments</b> 2380 and 2390 series 2945 series (spectrum only), 2965 series (graphical displays only)  <b>Rohde &amp; Schwarz</b> ESMI, ESCI, ESCS, ESIB, ESU, FSA/B/M, FSE, FSG, FSH (opt K1 or K40), FSIQ, FSL, ZVL, FSP, FSQ, FSU, FSUP, FSV CMS50 series (spectrum analyzer display only) CMD55/65, CMU200 (3GPP FDD/GSM/EDGE/Btooth), CMU300 (GSM/EDGE)  <b>Scientific Atlanta</b> SD385  <b>Tektronix</b> 2711/2712, 2714/2715, 492P/AP/BP, 494P, RSA3303A/08A, RSA6106A/RSA6114A  <b>Willtek/Aeroflex</b> 9100 Series</p>
<b>Modulation Analyzers</b>	<p><b>Advantest</b> R3264/3267/3273 + Opt62 3GPP, R3671/81  <b>Agilent / HP</b> 89400, 8981B, 89600, E4406, ESA, EXA, MXA, PSA, PXA ESG-B Option UND, ESG-C, PSG, MXG N5182A ARB Memory  <b>Anritsu</b> MS8604A, MS8608A/MS8609A Transmitter Tester, MT8820A, MT8852A, MS2690/91/92A, MS2380A  <b>Hewlett Packard</b> 53310 modulation domain analyzer 5372A Freq / Time Analyzer, 71500/70820A MTA, 5361B Counter  <b>IFR</b> 2310 Tetra modulation analyzer, 2319E RF Digitiser  <b>Keithley</b> 2910 Vector Signal Generator (Opt 2910-ARB)  <b>Pendulum</b> CNT-80 / 81 / 85 Counter  <b>Rohde &amp; Schwarz</b> AMIQ ARB, FSE with option B7, FSIQ FSIQ-B70, FSP-B70, FSG/FSP/FSU/FSQ/FSV IQ Capture FSIQ-K72 WCDMA Analysis, FS-K70, FS-K40 options  <b>Tektronix</b> WCA230A/280A, AWG400/500/600/710, AWG2021, AFG3000, AWG5000/7000/B series Arb, RSA6106A/RSA6114A  <b>Thurby-Thandar</b> TGA12100 Arb  <b>Wandel &amp; Goltermann</b> PCM-4 PCM channel test set</p>
<b>Oscilloscopes</b>	<p><b>Agilent / HP</b> 3000, DSO5000/MSO6000/DSO7000/MSO7000, MSO8000 DSO9000A, MSO9000A, 54111/12D, 54120 Series, 54200, 54501/02/03A, 54520/40C, 54600/1/2/3, 54610/15/16, 54621/22/24A/D, 54641/2/4A/D, 54645A/D, 54750, 548XXA, 80000, 83480, 90000  <b>Fluke/Philips</b> PM3350/55/65/75; PM338XA/PM339XA  <b>LeCroy</b> LC300/LC500/9300, WaveRunner/Master/Pro, SDA, DDA  <b>Rigol</b> DS6000 series  <b>Rohde &amp; Schwarz</b> RTO  <b>Tektronix</b> 11000 / DSA60x / CSA Digitiser, TDS 200 - 800/ 1000/ 2000/3000/4000/5000/8000, DPO7000, DPO70000, DSA70000, 2220/30/32, 2432/40, 7D20, 7854  <b>Yokogawa</b> DL1520/DL1540, DL1740 / DL7100 / DL7200</p>
<b>Others</b>	<p><b>Agilent</b> EPM-P Series Power Meter, 8990A/8991A  <b>Boonton</b> 4400 / 4500 Peak Power Meter  <b>Agilent</b> N8973/4/5A NFA Series Noise Figure Meter  <b>Hewlett Packard</b> HP8970A/B Noise Figure Meter HP 8990/8991 Peak Power Analyzer HP 85719A Noise Figure Card in HP859XE HP 85671A Phase Noise Card in HP8560/90</p>

<b>Minimum system</b>	Pentium 200MHz PC, 64MB RAM, 200MB hard disk space Microsoft Windows 7, XP, Vista, 2000, NT4, ME, or 98
<b>GPIB card</b>	<b>National Instruments</b> , type PC-IIA, AT-GPIB/TNT, PCI-GPIB, PCMCIA-GPIB, GPIB-USB-A/B/HS <b>Agilent / HP</b> 82335, 82340, 82341, 82350, 82357A/B <b>MCC (ComputerBoards Inc.)</b> , type ISA-GPIB, ISA-GPIB/LC, ISA-GPIB-PC2A, PCI-GPIB, PCM-GPIB. <b>IC Select inc. (www.icselect.com)</b> 488-USB, 488-USB2 <b>ines</b> GPIB-PCMCIA, GPIB-PCI card <b>Prologix</b> GPIB-USB 4.2, GPIB-Ethernet 1.2 or higher

## Capability Summary

<b>Supports</b>	Network Analyzers, Spectrum Analyzers, Modulation Analyzers, Oscilloscopes, Arbitrary waveform generators
<b>Chart Types</b>	Cartesian- linear and log, Polar, Smith, Admittance Smith, Eye Diagram, Vector Modulation (Cartesian, polar, rotated), Constellation, Nichols, Antenna Polar
<b>Graph Data Formats</b>	Linear magn, Log magn, re/im, VSWR, Phase, Group Delay, Unwrapped Phase
<b>Data Storage</b>	100 complex trace stores, arbitrary number of points (limited by available system memory). Each store has a trace label, trace notes and data analysis table.
<b>Markers</b>	Up to 20 markers and/or delta markers
<b>Limit lines</b>	Up to 50 arbitrary line segments for limits testing
<b>Scaling</b>	Up to 2 independent vertical scales
<b>Numerical</b>	Electrical delay, Smoothing, Magnitude/ Phase offset, Magnitude slope
<b>Trace maths</b>	+, -, /, x, Log, Magn, Phase, Square-root, Anti-Log, Group Delay, Derivative, Mismatch loss factor, Rollet's Stability Factor K, Stability Factor B, Edwards-Sinsky Stability Mu, Max Unilateral power gain, Max Available Gain, Max Stable Gain, Z0 Renormalisation, No. of Bit Differences, Max Value, Min Value, Standard 3 or 4 port to Mixed Mode S-Parameters, Timebase Delay, Smoothing, Wraparound Smoothing, Complex Reflection to VSWR, Complex Refl to impedance, dB Reflection to VSWR, mW to dBm, dBm to mW, T-Check quotient, Sorting
<b>Data Editing</b>	Edit, cut, copy and paste traces in the Table view
<b>Measurement Templates</b>	Copy attributes from previous measurements such as limits, markers, annotation, graticule
<b>Scripting</b>	Direct GPIB instructions and SoftPlot menu clicks can be stored and sequenced. Looping and branching, variables and user prompts can be added with the integrated editor.
<b>Integrated Interfaces:</b>	OLE2 Linking and Embedding (for Word, PowerPoint, etc) :- double - click in the document to begin editing. COM (ActiveX Automation) and DDE Server (for automated operation with test system software)
<b>File Formats:</b>	SoftPlot (*.SPT), MIPlot (*.MPT), Agilent EEsof, AWR MW Office, Eagleware GENESYS (*.SIP.. S10P), Ansoft Super Compact (*.FLP), Spreadsheet (*.CSV), Tab Delimited (*.TXT), MathCad (*.PRN), Citifile (*.F??,D??), BMP, TIFF, JPEG, WMF, EMF, PNG, MatLab (*.MAT)

## Ordering Information and Enquiries...

Further information and a free evaluation edition of **SoftPlot** is available for download from our Web site. Alternatively write, e-mail, call or fax us.

<b>Ordering Options :</b>	Purchase online at <a href="http://www.softplot.com">www.softplot.com</a> . Or request a quotation if you prefer to use an official company purchase order. Site licences are also available and quantity discounts may apply.
<b>Delivery :</b>	Within 10 working days
<b>Address To:</b>	Aphena Ltd., 10, Teversham Road, Fulbourn, Cambridge, U.K. CB21 5EB
<b>Phone:</b>	<b>Tel:</b> +44 (0) 1223 700499 <b>Fax:</b> +44 (0) 870 7061487
<b>E-Mail To:</b>	Enquiries@aphena.com
<b>WorldWide Web Site:</b>	<a href="http://www.aphena.com">http://www.aphena.com</a> <a href="http://www.softplot.com">http://www.softplot.com</a>

Ref : SoftPlot +Plus+ Data Sheet 19/12/11

The range of supported instruments is regularly enhanced - ask about support for instruments you need if you cannot find them here.

