Keysight Technologies
BenchVue Software v2.5 (BV0000A)
Data capture simplified. Click. Capture. Done.

Data Sheet

KEYSIGHT
TECHNOLOGIES

Simplified Measurement Viewing, Control and Capture

Keysight BenchVue software for the PC reinvents your bench testing by making it simple to connect and record results with your instruments with no programming. You will derive answers faster than ever by easily viewing, logging and exporting measurement data and screen images with a few clicks from a single environment. Use BenchVue to:
– Visualize multiple measurements simultaneously
– Easily log data, screen images and system state
– Recall past state of your bench to replicate results

Save time with:
– Fast measurement data export in desired formats
– Quickly access manuals, drivers, FAQs and videos

From anywhere:
– Monitor and control your bench from mobile devices

With BenchVue, it's as simple as: click, capture, done.

Measurement viewing

See your measurements across instruments in one place to quickly correlate measurement activities and obtain actionable insight.

Depending on your measurement task, BenchVue provides extensive data, trace and measurement logging capabilities all from within one piece of software.

Plug and play instrument control

Connecting and controlling an instrument to BenchVue is as simple as plugging it in and launching the BenchVue instrument application. No programming or separate instrument drivers required.

Integrated applications

BenchVue consists of different applications tailored to streamline your measurement tasks and are included in every no cost download of BenchVue (BV0000A).

Available BenchVue apps

App name	No cost version	Optional Pro upgrade
Digital Multimeter	Included in BV0000A	BV0001A
Function Generator	Included in BV0000A	BV0002A
Power Supply	Included in BV0000A	BV0003A
Oscilloscope	Included in BV0000A	BV0004A
Spectrum Analyzer	Included in BV0000A	BV0005A
Data Acquisition Unit	Included in BV0000A	BV0006A
Power Sensor	Included in BV0000A	N/A

BenchVue capabilities

BenchVue provides a wide array of capabilities depending on the instrument application within BenchVue being used. These capabilities will automatically vary based on the functionality of the instrument types and models connected to your PC running BenchVue software.

BenchVue Digital Multimeter App

Control your digital multimeter to visualize measurements, perform data logging and annotate captured data.

Supported functionality	
Instrument settings	– Measurement function and range selection – Integration time (NPLC/resolution) – Input impedance – Auto zero – Null state
Data visualization	– Chart with annotation, zoom in/out, auto scroll and markers – Histogram (Pro version only) – Table
Measurment data log	– Measurement data logging (1 hour duration) – Unrestricted logging with Pro version – Logger control – Limit testing with alerts (Pro version only)
Export screen image	– Clipboard – File (PNG/JPEG/BMP)
Export data	– MATLAB – Microsoft Excel – Microsoft Word – CSV
Save and recall instrument state	
Benchvue mobile support	

Supported models (7)
34401A   34405A   34410A   34411A   34450A   34460A   34461A

Pro version capabilities	
	– Upgrading to the Pro version (Model # BV0001A) provides histograms, digitizer capability and unrestricted data logging with limit checking and alerts.

BenchVue Oscilloscope App
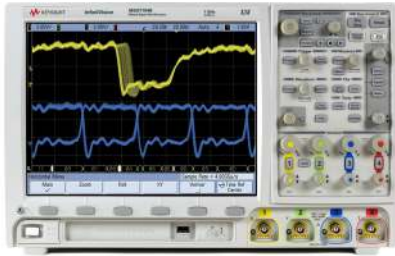
Control your oscilloscope to quickly capture and annotate screen images, record trace data and data log measurements.

Supported functionality	
Instrument settings	– Auto scale
	– Measurements toggle
	– Run control
	– Vertical scale and offset
	– Channel toggle
	– Trigger controls
	– Default setup
Screen image	– Get current screen with image options
	– Auto refresh control
	– Annotation (drawing/color/font)
Trace data	– Get current traces
	– Display selection (ch/func/mem/digital bus)
	– Set requested points
Measurement data log	– Measurement data logging (1 hour duration)
	– Unrestricted logging with Pro version
	– Logger control
	– Limit testing (Pro version only)
	– Data log configuration
Export data log data	– MATLAB
	– Microsoft Excel
	– Microsoft Word
	– CSV
Export screen images	– Clipboard
	– File (PNG/JPEG/BMP)
	– E-mail
	– Microsoft Word
Export trace data	– HDF5
	– MATLAB
	– Microsoft Excel
	– Microsoft Word
	– CSV
Save and recall instrument state	
BenchVue Mobile support	

Supported models (116) (MSO & DSO):
2000 X-Series, 3000 X-Series, 4000 X-Series, 6000 Series, 6000 X-Series, 7000A/B Series, 9000A Series, S-Series

Pro version capabilities	
	– Upgrading to the Pro version (Model # BV0004A) provides unrestricted measurement data logging with limit checking and alerts.

BenchVue Function Generator App

Control your function generator to set waveform properties and load custom arbitrary waveforms from files or drag-and-drop from an oscilloscope.

Supported functionality	

	– Output control
	– Waveform selection
	  – Sine
	  – Square
	  – Ramp
	  – Pulse
	  – Arb
	  – Triangle
	  – Noise
	  – PRBS (pseudo-random binary sequence)
	  – DC

Instrument settings	– Waveform: amplitude, offset, frequency, and phase
	– Mode select:
	  – Modulation:
	  -- Type: AM/FM/PM/FSK/BPSK/SUM
	  -- Source (INT/EXT/CH2)
	  -- Shape (Sin/Squ/Tri/Ramp/Nramp/Noise/PRBS/Arb)
	  -- DSSC (double sideband suppressed carrier)
	  -- Depth and AM frequency settings
	  – Sweep:
	  -- Type (linear/log)
	  -- Frequency set: start/center and stop/span
	  -- Time set: sweep, hold and return
	  – Burst:
	  -- N cycle mode/gated mode, start phase, number of cycles, and period
	– Output:
	  – Mode (normal/gated), polarity (normal/inverted) and load (discrete/Hi-Z)
	– Trigger:
	  – Source (IMM/ext/bus/timer), delay
	– Sync output
	  – Enable (on/off), polarity (normal/inverted), source (Ch1/Ch2) and mode (normal/carrier)

Export instrument properties to Microsoft Word	
Save and recall instrument state	

Supported models (17)												
33210A	33220A	33250A	33521A	33522A	33509B	33510B	33511B	33512B	33519B	33520B	33521B	33522B
33611A	33612A	33621A	33622A									

Pro version capabilities	
	– Upgrading to the Pro version (Model # BV0002A) provides advanced waveform creation capabilities by linking to Keysight Waveform Builder Pro Software from BenchVue.

BenchVue Spectrum Analyzer App
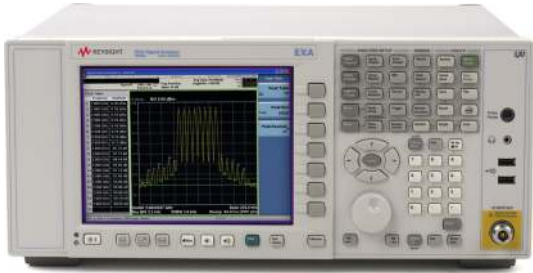
Control your spectrum or signal analyzer to quickly capture and annotate screen images and log trace data.

Supported functionality	
Instrument settings	– Frequency – Bandwidth – Amplitude – Sweep – Mode preset – Sweep control
Screen image	– Get current screen with image options – Screen image logging (1 hour duration) – Unrestricted logging with Pro version – Annotation (drawing/color/font)
Trace data	– Get current traces – Trace data logging (1 hour duration) – Unrestricted logging with Pro version – Save trace data (CSV)
Export screen images	– Clipboard – File (PNG/JPEG/BMP) – E-mail – Microsoft Word
Export trace data	– MATLAB – Microsoft Excel – Microsoft Word – CSV
Save and recall instrument state	
BenchVue Mobile support	

Supported models (21)
UXA N9040B, PXA N9030A, MXA N9020A, EXA N9010A, CXA N9000A, PSA E444xx, ESA E440xx and E4411B, BSA N9320B, N9322C

Pro version capabilities	
	– Upgrading to the Pro version (Model # BV0005A) provides deep memory capture and unrestricted data logging of screen images and trace data.

BenchVue Power Supply App
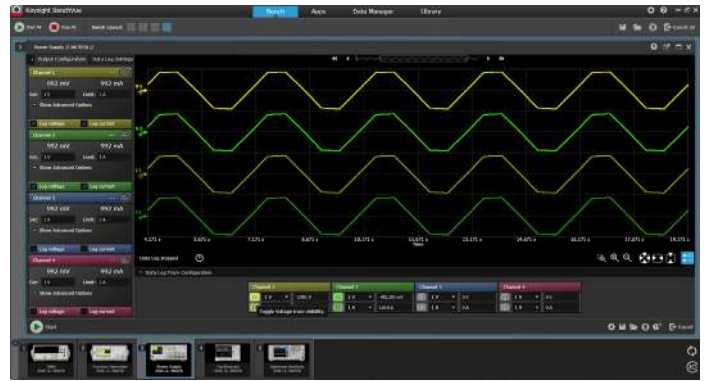
Control your power supply to set parameters, visualize power output and data log changing voltage and current over time.

Supported functionality	
Output control	
Instrument settings	– Set voltage output and range
	– Set current limit, limit mode and range
	– Enable/disable over voltage protection with limits
Supply output data log	– Output data logging (1 hour duration)
	– Unrestricted logging with Pro version
	– Logger controls
	– Enable/disable voltage and current log
	– Output status alerts (Pro version only)
Export screen image	– Clipboard
	– File (PNG/JPEG/BMP)
Export data	– MATLAB
	– Microsoft Excel
	– Microsoft Word
	– CSV
Save and recall instrument state	
BenchVue Mobile support	

Supported models (44)
E3631A, E3632A, E3633A, E3634A, E3640A, E3641A, E3642A, E3643A, E3644A, E3645A, E3646A, E3647A, E3648A, E3649A, N6700A/B, N6701A, N6702A, N6705A/B, N6950A, N6951A, N6952A, N6953A, N6954A, N6970A, N6971A, N6972A, N6973A, N6974A, N6976A, N6977A, N7950A, N7951A, N7952A, N7953A, N7954A, N7970A, N7971A, N7972A, N7973A, N7974A, N7976A, N7977A

Pro version capabilities	
	– Upgrading to the Pro version (Model # BV0003A) provides unrestricted data logging and status alerts.

BenchVue Data Acquisition Unit App

Control your 34970 or 34972 to data log and visualize measurements in a wide array of display options.

Supported functionality	
Module settings	– Slot selection – Mode control (scan, switch, inactive)

Configure channels	– Enable channel
	  – Toggle
	  – Naming
	– Measurement configuration
	  – Function (DC voltage, AC voltage, period, frequency, 2-wire ohms, 4-wire ohms,
	    temp types B, E, J, K, N, R, S, T, 2-wire RTD, 4-wire RTD, 2.2K therm, 5K therm, 10K therm
	  – Range
	– Scaling
	  – Toggle
	  – Gain
	  – Offset
	  – Label
	– Alarm limits
	  – Test condition
	  – Test parameters

Measurement display options	– Data grid – Strip charts – High visibility readout display – Bar meter – Histogram – Alarm light panel – Background settings
Measurement data log	– Measurement data logging (8 hour duration) – Unrestricted logging with Pro version – Logger control
Export screen image	– Clipboard – File (PNG/JPEG/BMP)
Export data	– MATLAB – Microsoft Excel – Microsoft Word – CSV
Save and recall instrument state	

Supported models (2)
34970A, 34972A

Pro version capabilities	
	– Upgrading to the Pro version (Model # BV0006A) provides unrestricted data logging.

BenchVue Power Sensor App

Control your power sensor to data log and visualize measurements in a wide array of display options.

Supported functionality

Instrument settings	– Preset select (DME, GSM, WCDMA, WLAN, LTE, etc.) – Instrument reset – Channel setup – Mode, offset, frequency – Trace setup – Units, scale configuration – Measurement setup – Units, offset, feed setup, alerts, recorder – Trigger setup – Mode, source, auto level, delay, slope type – Gate setup – Start, length – Calibration – Zero, calibration, calibration + zero – Corrections – FDO, Gamma, S-parameter
Measurement display options	– Digital meter view – Analog meter view – Data log view – Trace view with markers and gate – Multilist view – Alert summary
Measurement data log	– Measurement data logging (1 hour duration) – Logger control
Export screen image	– Clipboard – File (PNG/JPEG/BMP) – E-mail
Export data	– MATLAB – Microsoft Excel – Microsoft Word – CSV
Save and recall instrument state	

Supported models (2)

U2021XA, U2022XA

Pro version capabilities

- Coming in 2015. Upgrading to the Pro version will provide unrestricted data logging.

BenchVue Mobile

Mobile Apps lets you monitor and respond to long running tests from anywhere. Multimeters, oscilloscopes, function generators, spectrum analyzers and power supplies are all supported from one app.
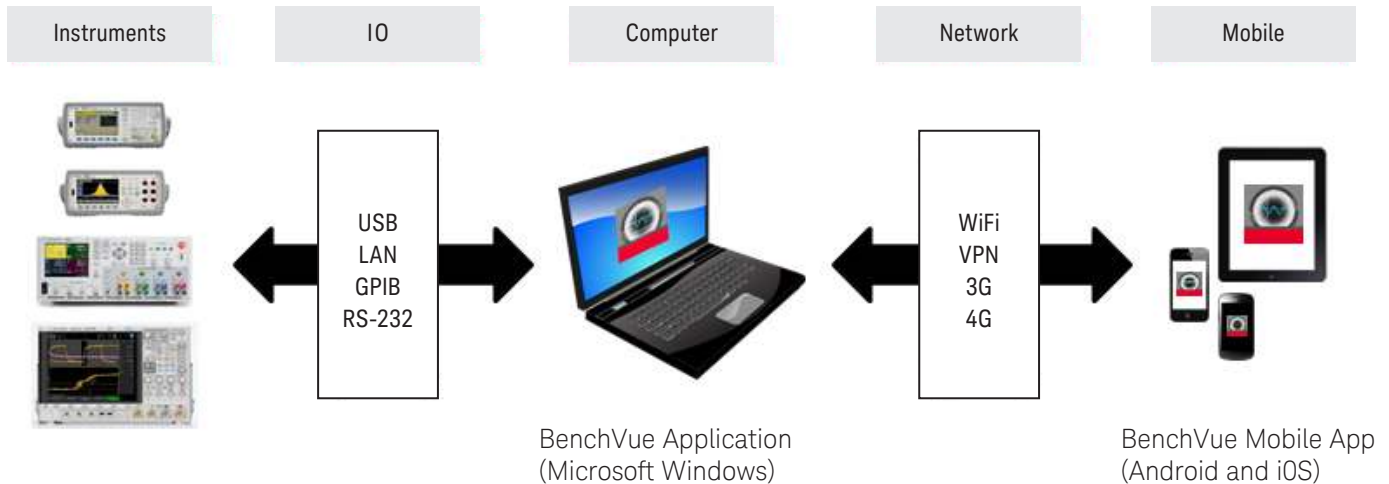

BenchVue Mobile is a mobile app that you can install on an Android or Apple iOS device to control BenchVue bench applications running on your Windows computer. BenchVue Mobile connects to your computer as a client, and requires that your mobile device and computer be connected to the same local network or intranet (behind the same corporate firewall). This network connection can be made via a WiFi connection inside your work location or externally through a VPN connection.

BenchVue Demonstration Mode

BenchVue includes a demonstration mode that requires no instruments to be connected, making product evaluation quick and easy. Simply download and click "Enable Demo Mode" under the global setting menu to begin exploring BenchVue functionality.
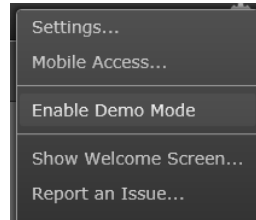
To assist in the evaluation of BenchVue with physical instruments, BenchVue includes an integrated user manual and getting started guide to make setup quick and easy.

| Instruments | IO | Computer | Network | Mobile |

USB
LAN
GPIB
RS-232

WiFi
VPN
3G
4G

BenchVue Application
(Microsoft Windows)

BenchVue Mobile App
(Android and iOS)

System and Installation Requirements

PC operating system	
Windows 8 and 7	– Windows 8 32-bit and 64-bit (Core, Professional, Enterprise) – Windows 7 SP1 and later 32-bit and 64-bit (Professional, Enterprise, Ultimate)
Computer hardware	– Processor: 1 GHz or faster (2 GHz or greater recommended) – RAM: 1 GB (32-bit) or 2 GB (64-bit) (3 GB or greater recommended)
Windows XP SP3 32-bit (Professional)	– Processor: 600 MHz or faster (1 GHz or greater recommended) – RAM: 1 GB (2 GB or greater recommended)
Interfaces	USB, GPIB, LAN, RS-232
Display resolution	1024 x 768 minimum for single instrument view (higher resolutions are recommended for multiple instrument view)

Additional requirements

BenchVue requires a VISA (Keysight or National Instruments) when used to connect to physical instruments. Keysight IO Libraries Suite, which contains the necessary VISA, will be downloaded and installed automatically when BenchVue is installed if needed. IO Libraries Suite information is available at: www.keysight.com/find/iosuite

Mobile devices

Apple iPhone, iPad, iPod Touch all models; iOS 6.0 and later. Android phone and tablets; Android 2.3.5 and later.

With BenchVue, it's as simple as: Click. Capture. Done.

BenchVue software for PC
Download cost free at: www.keysight.com/find/BenchVue

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A personalized view into the information most relevant to you.

www.keysight.com/go/quality
Keysight Technologies, Inc.
DEKRA Certified ISO 9001:2008
Quality Management System

Keysight Channel Partners
www.keysight.com/find/channelpartners
Get the best of both worlds: Keysight's measurement expertise and product breadth, combined with channel partner convenience.

www.keysight.com/find/benchvue

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

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