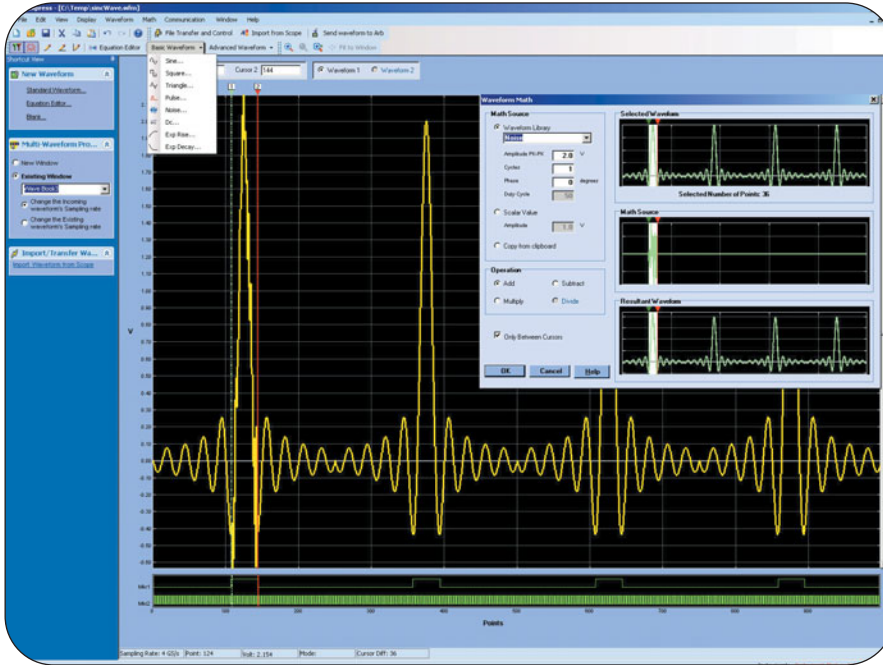


ArbExpress™ Software for Arbitrary Waveform and Arbitrary Function Generators

▶ AXW100



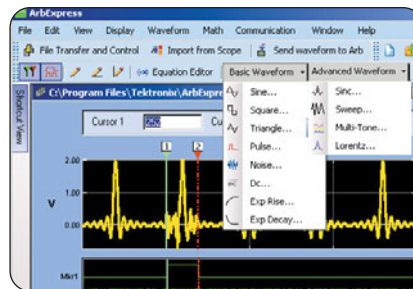
Efficient and Effortless Waveform Creation and Editing Tool for Tektronix AWG and AFGs

Designers often need to ensure their designs operate under real-world conditions. Engineers need tools to quickly and effectively harness the power of their Arbitrary Waveform Generator.

ArbExpress™ allows for improved efficiency with fast and effortless waveform creation and transfer to your Tektronix AFG/AWG mixed signal sources.

Comprehensive library of waveforms

ArbExpress' vast library enables creation of simple and complex waveforms. Modify and transfer to perform DUT level and timing sensitivity tests with ease.



Grab and Go!!

Generating real-world signals captured on an oscilloscope meant confusing steps, operator traps and frustrating errors. ArbExpress seamlessly translates acquisitions and simplifies transfer to the ARB, thereby shrinking translation times from several hours to seconds.

▶ Features & Benefits

Comprehensive Library Enables Quick Waveform Creation Chosen From Standard or Advance Waveform Selections

Capture of Oscilloscope Data and Seamless Translation Shrinks Translation Time and Minimizes Errors

Send Waveforms to AWG Directly From ArbExpress or MATLAB

Unparalleled Ease of Equation Building Increases Efficiency

Validation of Waveform Parameters Specific to the Selected Instrument Type

Math Operations on Waveforms (From Waveform Library, Scalar & Clip Board)

Digital Marker Output Editor Allows for Easy Generation and Editing of Marker Pulses

Multi Waveform Overlay Viewing for Easy Comparisons and Editing

File Transfer and Control Allows for Easy Loading of Edited Waveforms to the Connected AWG/AFG

.NET Based Application

▶ Applications

Characterization

Functional Test

Design and Validation

Real-world Signal Test

Phase Comparator Test Using Controlled Phase Difference Signals

Capture, Edit and Replay of DSO Recorded Real-world Signals

Modulation Signal Test by AM/FM/PM Signals

Frequency Response Test by Sweep (Liner) Signals

SFDR/Signal IM Test by Multi-tone Signals

Sensors Output Signal Simulation

Actuator Driving Signals

COMPUTING

COMMUNICATIONS

VIDEO

ArbExpress™ Software for Arbitrary Waveform and Arbitrary Function Generators

▶ AXW100

▶ Characteristics

User Interface – Windows-based
98/Me/NT4/2000/XP.

Displays – Waveform and Marker Data.

Waveform Translation

Oscilloscope –

Import waveforms directly from TDS1000, 2000, 3000 series oscilloscopes.

Translation of oscilloscope .WFM waveform formats to AWG/AFG formats.

MATLAB – Command set.

AWG – Tektronix AWG 400, 500, 600, 700 and 2000 series.

AFG – Tektronix AFG300 series.

MATHCAD – ASCII.

Others – *.CSV, ASCII.

Standard Waveforms

Basic Waveforms – Sine, Square, Triangle, DC, Pulse, Noise (Gaussian White, Pink) Exponential Rise and Exponential Decay.

Advance Waveforms –

Sinc, Sweep (linear), Multi-tone, and Lorentz.

Users can control the different parameters of the waveform being created.

Parameters – Amplitude, Frequency, Phase, Cycles.

Extended Functions –

Supports preview before committing to changes.

Supports Multiple Waveform Display.

▶ System Requirements

OS Supported

Windows XP Professional Service pack 1

Or

Windows 2000

Or

Windows 98/Me

Or

Windows NT Service Pack Me

Minimum requirements

Pentium III @ 800 MHz and Higher

256 MB RAM

300 MB Free Disk Space

Microsoft Internet Explorer 5.01 and Higher
.NET Framework 1.1 Redistributable
800x600 Display Resolution

The following table lists the condition under which ArbExpress uses TekVISA™ version 2.01 or above.

	AWG/AFG	Oscilloscope
LAN	TekVISA not Required*1	TekVISA Required
GPIB	TekVISA Required	TekVISA Required
RS232	Not supported	TekVISA Required

*1 AFG and AWG 2XXX series instruments do not support LAN.

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Waveform Creation Palette

Palette – Freehand, Vertical draw, Horizontal draw.

Edit Functions – Copy, Paste, (Prepend, Append, Replace between cursors, Copy as Bitmap, Copy to System Clip Board, Zoom In, Zoom Out, Horizontal Zoom, Fit to Window, Cut, Undo, Redo, Invert, and Mirror.

Markers

Edit Markers – Modify between cursors, User defined Patterns in Hex or Binary, Set High, Set Low, 0/1 Patterns, Random Patterns, Clear Patterns, and Free hand editing.

Equation Waveform Library

Comprehensive library of sample equations.

Equation Building

Math Operators – Add, Subtract, Multiply, Divide.

Math Functions – Linear, Absolute, Log, Square, Exponential, Integration, Differentiation, Normalize. Supports Preview.

Waveform Math

Math Operators –

Add, Subtract, Multiply and Divide on Basic Waveforms, Scalar and Clip Board. Optionally Normalize Waveforms.

Waveform Transfer

Supports both NI VISA and TekVISA™ – GPIB (TekVISA), LAN (Raw Socket).

Instrument Control

Models – AFG3xx and AWG20xx (GPIB), AWG4xx, 5xx, 6xx, 7xx (GPIB, LAN).

Controls – Analog: Run, Stop, Frequency, Amplitude, Offset, Phase, Filter, Clock, and Channel Output On/Off Digital Markers: Amplitude.

MATLAB – Command set.

▶ Ordering Information

AXW100 ArbExpress

Available only as a free download from www.tektronix.com/axw.

ArbExpress™ Software for Arbitrary Waveform and Arbitrary Function Generators

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Our most up-to-date product information is available at:
www.tektronix.com



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