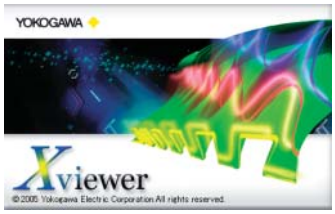
YOKOGAWA

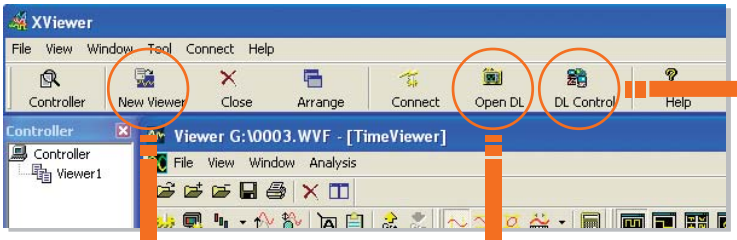
Xviewer

PC Software for DL Series Instruments

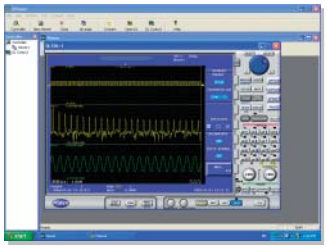


Xviewer is a PC software application designed to work with Yokogawa's DL series digital oscilloscopes and the DL750 series ScopeCorders. Xviewer allows you to display DL-acquired waveform data (using the "Viewer" function), perform file transfers, and control DL series instruments remotely.
In addition to simply displaying the waveform data, Xviewer features many of the same functions that the DL series instruments offer: zoom display, cursor measurements, calculation of waveform parameters, and powerful waveform math (waveform math is available only with the optional Math version of Xviewer). Binary waveform data can be converted to CSV or Excel format and opened using a spreadsheet program.
Additionally, Xviewer lets you transfer files between the DL series instruments and a PC, and gives you remote control of the instruments using your PC.
Xviewer also enables offline waveform display, computation, and analysis of data captured using Yokogawa's WE7000 series of PC-based measurement instruments.

<Main Window>



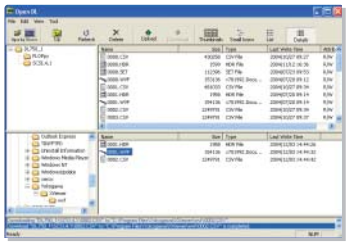
Remote Instrument Control



Xviewer supports Ethernet, USB and GP-IB interfaces, allowing you to control DL series* instruments using the PC on which Xviewer is installed. A virtual image of the screen and front panel of the DL that Xviewer is connected to is displayed on the PC. You can perform operations remotely by using your PC's mouse to "click" keys on the virtual screen as if you were pressing the actual keys on the DL.

Viewer

File Transfer

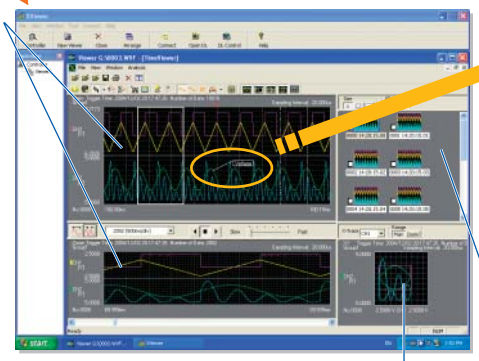


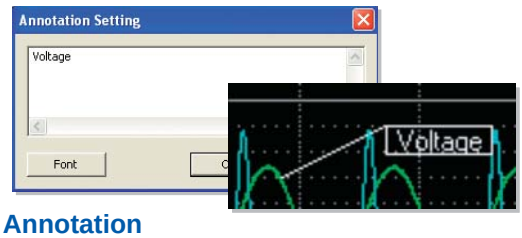
You can perform file transfers between a DL series* instrument and the PC on which the software is installed, via Ethernet, USB or GP-IB. When you connect with the DL, Xviewer displays a list of files residing on the DL. You can select files from the list for download to the PC.

* : DL750/DL1600/DL1700E and DL7400 series only

Main & Zoom Displays

Xviewer's zoom function works in the same manner as that on the DL instruments; displaying the entire waveform and a zoomed subset of the waveform simultaneously. The waveform can be horizontally and vertically zoomed. Even large amounts of waveform data (up to 1 GW with the DL750 series) can be viewed quickly.
The zoom window can be automatically scrolled (with variable direction and speed).





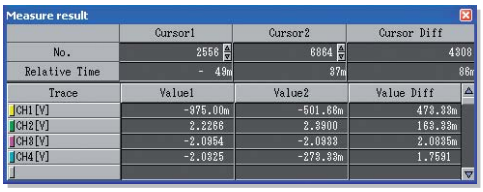
Annotation

Xviewer's zoom function works in the same manner as that on the DL instruments; displaying the entire waveform and a zoomed subset of the waveform simultaneously.

History Memory Display

Using the DL series instrument's history memory, you can arrange and display thumbnails of multiple acquired waveforms. The selected waveforms are expanded and displayed in the Main screen; multiple waveforms can also be superimposed.

X-Y Display

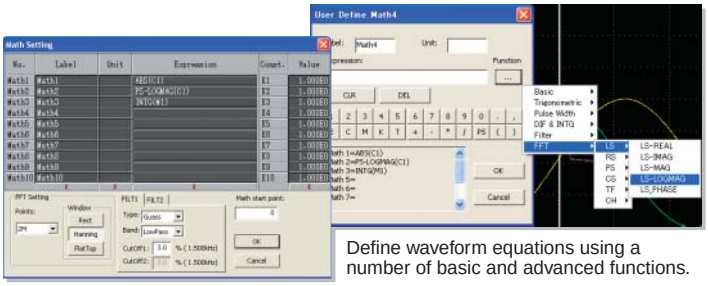


Cursors

Using cursors, you can display the measured values at the points where the cursors intersect the waveform. There are three types of cursors available: horizontal, vertical, and X-Y. If two cursors are displayed, the difference between the them can be calculated and displayed.

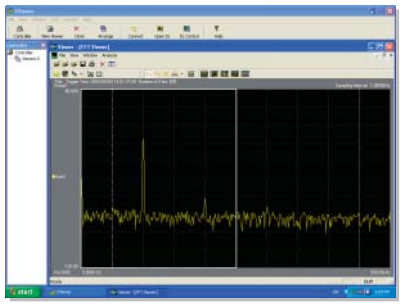
Waveform Computation (available only with the Math Edition)

Up to ten math waveforms based on the displayed waveform data can be calculated and displayed. In addition to simple addition, subtraction, multiplication, and division, user-defined equations can be created using a large number of functions including: trigonometry, differentiation/integration, pulse width computation, and six types of FFT calculations. FFT analysis using up to 2M data points can be performed, and a wide variety of functions are available for frequency domain calculations such as power spectrum and transfer functions (amplitude and phase). Digital filtering (low pass, high pass, band pass) calculations for noise rejection and other applications are also included.



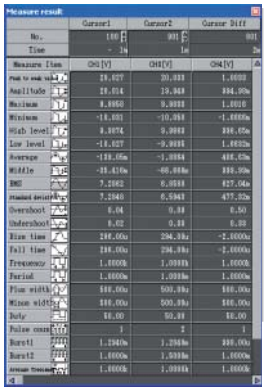
Define waveform equations using a number of basic and advanced functions.

FFT Display
Frequency domain waveforms are displayed in a dedicated FFT viewer window.



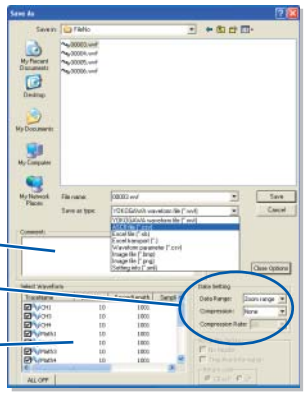
Automated Waveform Parameter Measurements

Parameters (characteristics) of the displayed waveforms can be automatically calculated and displayed. Up to twenty-six parameters can be selected. Calculation of the selected parameters is performed automatically and the measured results are displayed in a list (as shown on the right).
The results of these calculations can be saved in a CSV file.



Data Conversion

Waveform data files in binary format (useful for data transfer because of their smaller size) can be converted to ASCII or Excel format and then opened using a spreadsheet program.



Comments can be added to files prior to saving (or conversion).

Select the data range and compression method for the file to be saved (or converted).

Select an individual channel or multiple channels to be saved (or converted).

Overview of Specifications

Compatible DL and WE Series Models:
DL1600, DL1700, DL1700E, DL7400, DL750 series and WE7000
Note: Online file transfer is not possible with the DL1700 and WE7000

Functions: Waveform Viewer
Communication settings(GP-IB,USB,Ethernet)
Online File Transfer*
Remote control of the DL series*
Data Conversion
* : Available only with DL750/DL1600/DL1700E and DL7400 series.

Specifications of Waveform Viewer
Supported File types:
Waveform data files in Binary format (.wvf & .wdf file name extensions)
Waveform data files in ASCII format (.csv file name extension)
Max. Number of displayed waveforms:
90/Group, Up to 10 Groups can be set
Display format: Main, Zoom, History, X-Y
Number of divided Windows:
Max. 16
Cursors: Vertical, Horizontal and X-Y
Annotation: Comments can be added in the Main, Zoom and X-Y windows
Automated Calculation of Waveform Parameters:
Max. 26 items such as P-P, Amp, RMS, Freq

Waveform Computation (available only with the Math Edition)
Max. Number of displayed waveforms (CHs):
10 waveforms (Math1 to Math 10)
Computation Accuracy (resolution):
Single floating point number
Operations: +, −, ×, /, Phase Shift
ABS, SQRT, LOG, EXP, NEG, SIN, COS, TAN, ATAN, PH, DIF, DDIF, INTG, IINTG, BIN, P2, P3, F1, F2, FV, PWHH, PWHL, PWLH, PWLL, PWXX, DUTYH,DUTYL, FILT1, FILT2, HLBT, MEAN, LS, RS, PS, PSD, CS, TF, CH
(See the following web site for detailed information of these operations. http://www.yokogawa.com/tm/701992/)

FFT Points: Max. 2M points
FFT Window: Rect, Hanning and Flat top
Digital Filter: Guass, Sharp, IIR
Max. Number of computed points:
10M per each Math channel

Waveform Data Conversion:
File(s) with an .wvf file name extension can be converted to ASCII (.csv) or Excel (.xls) format.
DL750 series realtime recording files with a .wdf file name extension can be converted to Binary (.wvf), ASCII (.csv) or Excel (.xls) format.

System Requirements
PC: Personal Computer(PC) with Pentium Ⅲ (1GHz) or faster processor capable of running Windows 2000 (SP4 or later) or XP (SP1 or later), and at least 256 MB of RAM (512MB recommended)
Display: SVGA, or XGA monitor with at least 65536 colors
GP-IB board: National Instruments GP-IB board or PCMCIA card (required when using GP-IB data transfer and remote control)
* :A dedicated USB driver is required when using the USB interface. The USB driver can be downloaded from YOKOGAWA's web site.

You can download a trial version of Xviewer from YOKOGAWA's web site at:
http://www.yokogawa.com/tm/701992/

Model & Suffix codes

Model	Suffix code	Description
701992	-SP01	Xviewer Standard Edition(1 license)
	-GP01	Xviewer Math Edition(1 license)

CAUTION
● Be sure to read the instruction manual for proper and safe use of the product.

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