



Visual LOG[®]

Waveform View Software

WF-7630

Frequency Processing Version **WF-7630-H**


Easily edit dynamic strain measurement data (DADiSP format)

This software is designed for use with our measuring instruments DH-14A/TMR-311/TMR-211/DC-204R, measurement software

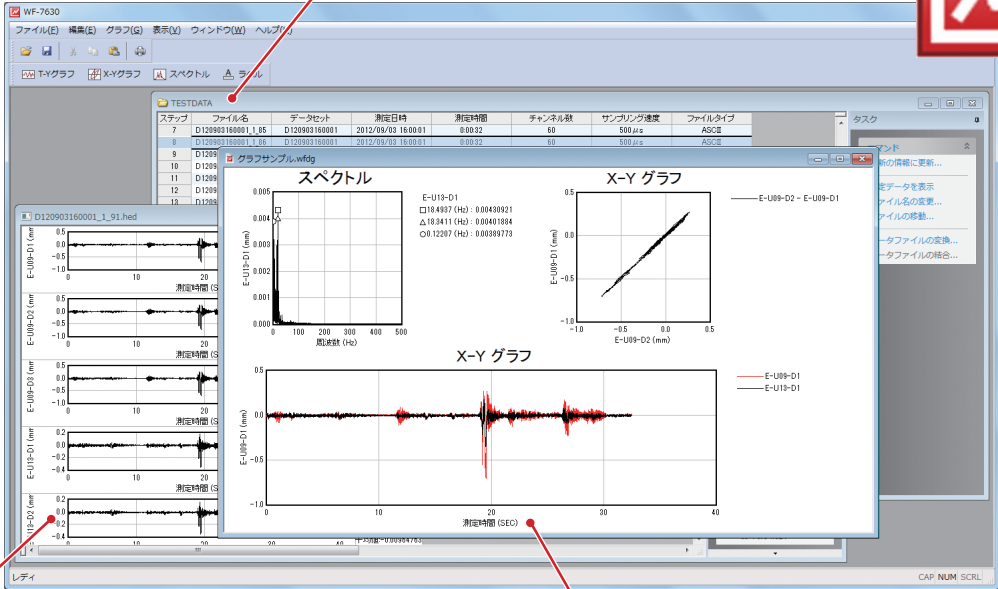
This software lists, edits, and graphs measurement data in DADiSP format output by our measuring instruments RD-7640/DS-750/RD-7300/DC-7004P/DRA-7162/TMR-7630/DC-7630/DC-7204v2, etc.

In addition to data recalculation, merging, cutting, thinning, and CSV conversion of data files, the software also performs maximum and minimum values, FFT analysis, calculations and graphs (X-Y, T-Y, spectrum) plotting using extended channels, and playback of waveform data and video recorded by video capture-capable measurement software in conjunction with the software. The software also supports optional frequency processing.

The optional frequency processing version WF-7630-H can also perform frequency analysis of waveform data.



Data File List
Load data files, rename files, batch conversion, division, thinning, and merging.



Data File
The data file contains channel settings, data lists, graph list displays, coefficient changes, and extended channel reconfigurations. You can also specify a range of data for text conversion or data extraction.

Graph
Displays the data file being displayed as a T - Y graph, X - Y graph, or spectrum. Multiple graphs, images, and other objects can be freely placed in a single window, and measurements displayed in graphs can be saved as text.

Special Feature

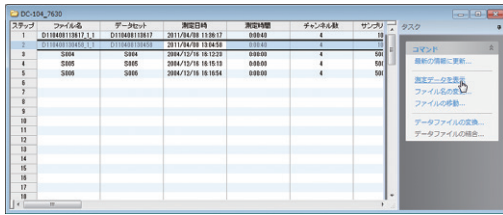
- Compatible with many DADiSP-style instruments and software
- Measurement data can be recalculated by changing coefficients, offsets, etc.
- Combine split data files by free-running
- Batch conversion of file renaming, cropping, and thinning in the data file list
- Range selection and thinning are possible when converting data files to CSV
- Multiple graphs and objects can be placed in the graph window
- Graph data can be saved as images and graph values can be saved as CSV files
- Capable of linking waveform data recorded by RD-7630-M with video
- Frequency data can be plotted (optional WF-7630-H is required for frequency processing of waveform data)

Tokyo Measuring Instruments Laboratory Co., Ltd.

Example of data processing screen

Data file list

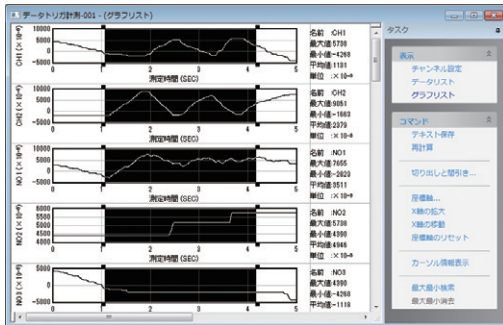
Load data files, rename files, batch conversion, division, thinning, and merging.



Data File

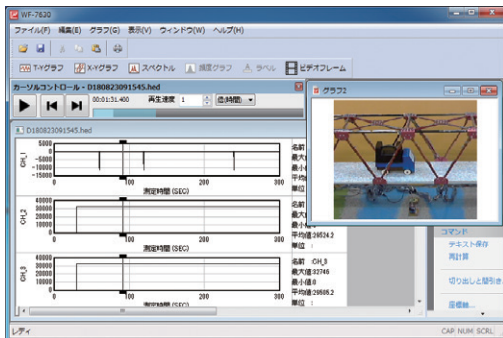
The data file contains channel settings, data lists, graph list displays, coefficient changes, and extended channel reconfigurations.

You can also specify a range for text conversion, data extraction, and other editing functions.



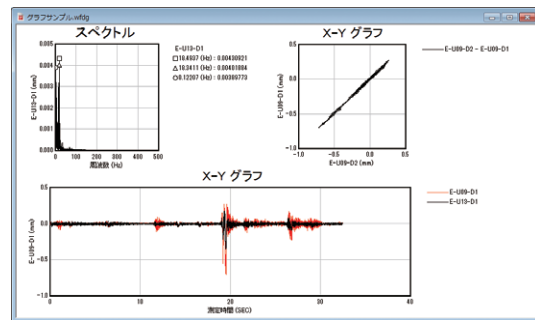
Linkage of frequency waveform data and video

Playback of video frames in conjunction with waveform data recorded by video capture-compatible measurement software such as RD-7640-M

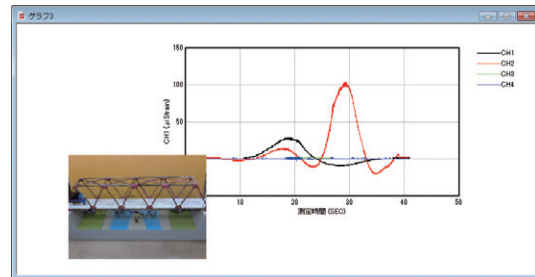


Graph

Displays the currently displayed data file as a T-Y graph, X-Y graph, or spectrum.



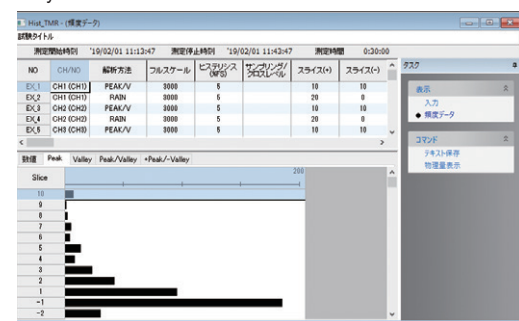
Multiple graphs, images, and other objects can be freely placed in a single window, and measurements displayed in graphs can be saved as text.



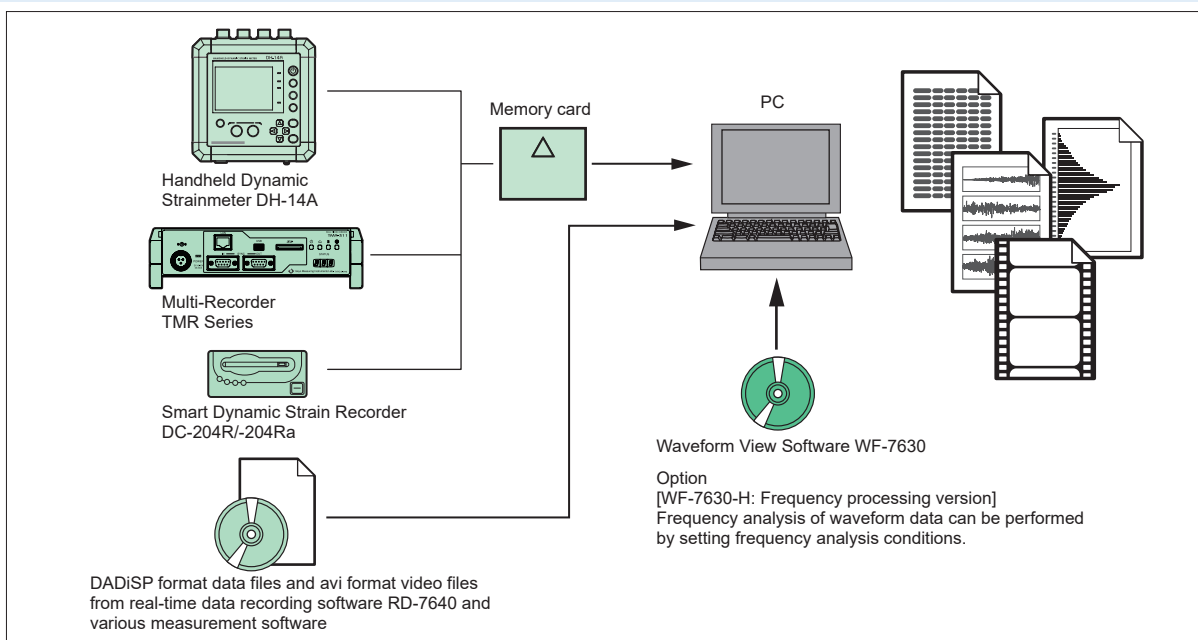
Setting Frequency Analysis Conditions

[Frequency Processing Version WF-7630-H]

Frequency analysis conditions can be set to perform frequency analysis of waveform data.



System Block Diagram



Specification

Supported data file	
.hed/.dat (DADiSP compatible format) Dynamic Strainmeter TMR-311/TMR-211/DC-104/DC-204/DH-14A Dynamic Measurement Software RD-7640/DS-750/DC-7630/DC-7204v2/DRA-7630/TMR-7630/RD-7300/DC-7004P output DADiSP files in INTEGER and ASCII format (data files thereafter) *GPS coordinates and frequency data cannot be read into the measurement data recorded by the TMR-211	
Response frequency data file	
Frequency data files output from the following instruments and software *.hed/*.dat (DADiSP compatible format) Dynamic strainmeter TMR-211 (frequency analysis library TMR-211-01 required) Analysis processing software DFA-7610 *.tmrh Dynamic Measurement Software TMR-7630-H	
Supported Video File	
Video files recorded with video capture-enabled measurement software *.avi *To display avi files recorded by other than RD-7630-M in conjunction with waveform data files, it is necessary to edit the recording date and time of the video file.	
Waveform data file processing	
Cutting out	Create a new data file by specifying an arbitrary range from an existing data file
Thinning	Create a new data file by thinning out arbitrary data from an existing data file
Combine	Combines data files that have been split by lengthy measurements
Condition	Identical number of channels Same sampling speed Same file type Number of data per channel after merging 1,073,741,824 or less
CSV File Conversion	Converted to standard CSV format or CSV format readable by our FFT analysis software DFA-7610
File partitioning	CSV conversion to multiple files with specified number of data
Window section	
File List	Specify any folder and list information on data files in the folder
Waveform data file	Display waveform data file information in channel settings/data list/graph list
Frequency data file	Display frequency analysis conditions and analysis results
Graph	Display T-Y graph/X-Y graph/Spectral graph/Frequency graph/Video frame
Waveform Data File List	
Display Information	File name / Data set / Date and time of measurement / Measurement time / Number of channels / Sampling speed / File type
Maximum number of displays	50,000 files
Sort by	Sort by date and time of measurement
Update	User-operated updates to the list when information in a folder is updated
Rename	Rename files When multiple files are selected, sequential numbers can be specified
Move	Move selected files to another folder
Waveform Data File	
Channel Settings	
Channel	Edit name/factor/offset/unit/format
Maximum	1000 points
Expansion channel	Edit name/function/unit/format
Maximum	1000 points
Update	Update and recalculate channel information by user operation when it is changed
Unit	User sets arbitrary units
Format	Set exponent/factor
Function	Edit from edit window with help function
Data List	Displays measurement data for each channel by value
Maximum and Minimum Search	Highlight maximum and minimum data
Graph List	Displays measurement data for each channel in a T-Y graph
Maximum and Minimum Search	Highlight maximum and minimum data

Frequency Data File List	
Display Information	File Name / Data Set / Measurement Start Time / Measurement Stop Time / Test Title / File Type
Maximum number of displays	50,000 files
Sort by	Sort by date and time of measurement
Update	User-operated updates to the list when information in a folder is updated
Rename	Rename file When multiple files are selected, sequential numbers can be specified
Move	Move selected files to another folder
Frequency Data File	
Title	Set a title for the frequency data file
Input	Displays information about the waveform data file used for frequency analysis
Name	Displays the name of the channel recorded in the waveform data file
Calibration	Displays calibration values recorded in waveform data files
Unit	Displays units recorded in the waveform data file
Format	Sets the display format for numerical values Reflected in the display of full scale / maximum value / minimum value / physical quantity
Frequency Data	
Analysis Conditions	Analysis method used for frequency analysis / full scale / hysteresis / sampling / cross level / slice (+) / slice (-)
Statistics	Displays overcount/maximum/minimum values
Numerical Display	Display frequency analysis results in tabular form
Graph Display	Displays frequency analysis results in a bar graph
Geophysical quantity display settings	Display/non-display of the geophysical quantity corresponding to each slice
Saving	Save analysis conditions and results as a frequency data file
Save as text	Save analysis results as a text file
Printing	Print the displayed data
Video File List	
Display Information	File name/size/record date/record time/resolution/frame rate
Maximum number of displays	50,000 files
Update	User-operated updates to the list when information in a folder is updated
Rename	Rename video file
Move	Move selected files to another folder
Change Record Date and Time	Change and initialize recording date and time
Controls	Play/pause/stop video files
Graph	
T-Y Graph	X-axis graphs time, Y-axis graphs physical quantity
X-Y Graph	Graph display with arbitrary channels specified on X/ Y axes
Spectrograph	Graphical display of any single channel in power spectrum or amplitude spectrum
Frequency Graphs	Displays frequency analysis results as a distribution chart
Video Frame	Display video file
Window	Draw multiple graphs in a single graph window
Scale	Graph scale can be changed by direct keyboard input or intuitive mouse operation
Copy	Copies a graph drawn in a window to the clipboard
Save Picture	Save what is drawn in the graph window in bitmap (BMP), extended metafile (EMF), or PNG (png) format
Data processing	
Statistical processing	Displays maximum, minimum, mean, and standard deviation for an arbitrary range
FFT Analysis	FFT analysis of an arbitrarily specified range (with restrictions) is possible
Analysis Type	Linear spectrum, power spectrum
Window function	Rectangular window, humming, hanning

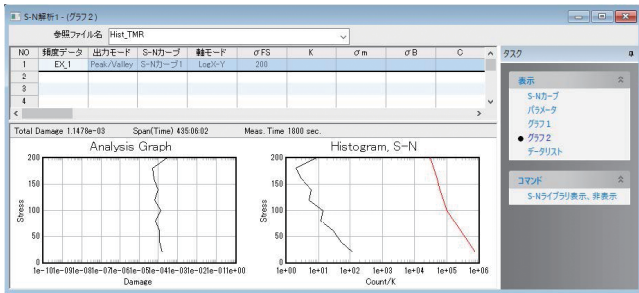
Operating environment

OS	Microsoft Windows 7(SP1) / 8.1 / 10 / 11
PC	Models recommended by the above OS environment for PCs
Disk Space	At least 5 GB of free disk space
Protect Key	USB dongle (WF-7630-H only) Required when using the additional frequency processing function

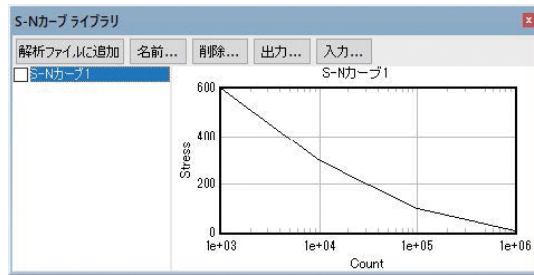
Option [WF-7630-H: Frequency processing version]

Frequency analysis conditions can be set to perform frequency analysis of waveform data. S-N analysis conditions can be set to perform fatigue life estimation (S-N analysis).

S-N Analysis



S-N Curve Library



Frequency Processing

Frequency Analysis	Create frequency data files from waveform data files by specifying frequency analysis conditions
Sequential Frequency Analysis	Create a frequency data file from the waveform data file selected in the file list by specifying frequency analysis conditions.

Window section

Frequency Analysis Conditions	Set channel / analysis method / full scale / hysteresis / sampling / cross level / number of slices
S-N Analysis File	Creation of S-N curve, setting of S-N analysis conditions, and display of S-N analysis results
S-N Curve Library	S-N Curve Management

Frequency data file list

Frequency addition	Create a new frequency data file by summing the values of the frequency data files selected from the file list
Terms	Identical analysis method Identical full scale Same hysteresis Sampling is identical (for time method) Identical cross levels (for maximum and minimum value method) Identical number of slices

Frequency Analysis Conditions

Condition Setting	Up to 80 conditions for frequency analysis
CH/NO	Sets the channel or extended channel of the waveform data file used for frequency analysis
Analysis Method	Select from maximum and minimum value method / maximum and minimum value method / amplitude method / time method / level crossing method / rain flow method
Full Scale	Full scale (single amplitude) of waveform data in physical quantity
Hysteresis(%FS)	Reactive amplitude as a percentage of full scale
Sampling	Set sampling time in milliseconds when analysis method is time method
cross-level	When the analysis method is the maximum and minimum value method, the judgment level (cross level) is set by a physical quantity
Slices	+Set the number of slices on the + and - sides within a total of 200

S-N Analysis File

S-N Curve List	
S-N Curve	Create, edit, and delete S-N curves for S-N analysis, Registration in the S-N Curve Library
Image saving	S-N curve settings and graphs are saved as image files
Print	S-N curve settings and printing graphs
Condition Setting	Up to 80 conditions for S-N analysis
frequency data	Set frequency data for S-N analysis
Output Mode	Select data for analysis among the selected frequency data outputs
S-N Curve	Select the S-N curve to be used for S-N analysis from the S-N curve list
σ FS	Full scale (single amplitude) of waveform data in physical quantity
K	Set coefficients to account for dimensional effects, time effects, etc.
σ m	Set mean stress
σ B	Set tensile strength or true breaking strength
C	Factor to determine whether or not fatigue damage is caused when the mean stress σ m is negative.
Analysis Results	
Save	Analysis conditions and results as an S-N analysis file
Save as text	Save analysis results as a text file
Printing	Print the displayed data

S-N Curve Library

Automatic registration	When creating a new S-N analysis, the S-N analysis file will automatically be added to the S-N analysis file
Manual Registration	Add S-N curve to S-N analysis file
Rename	S-N Curve Rename
Delete	Delete S-N curves from the library
Output	Save S-N curve to file
Input	Read S-N curve from file



Approval Certificate ISO9001
Design and manufacture of
strain gauges, strain measuring
equipment and transducers

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