

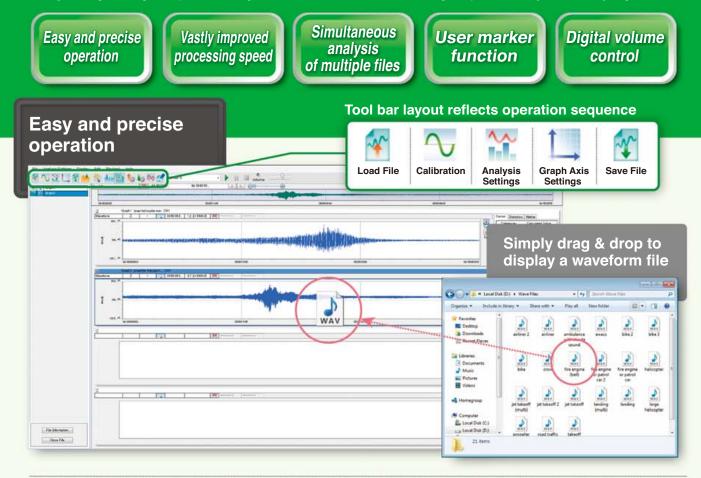


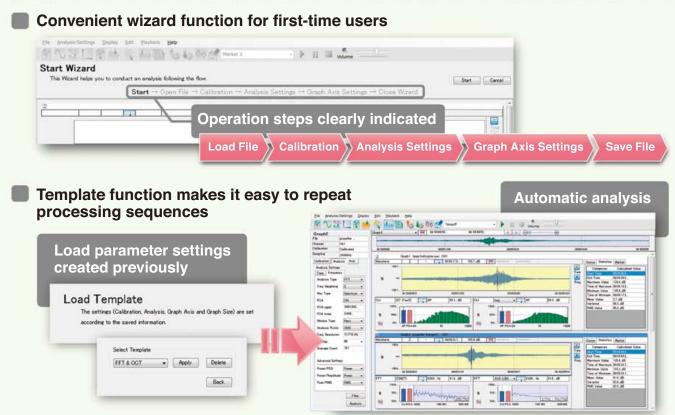
Waveform Analysis Software AS-70



Completely Renewed Analysis Software from Rion

The Waveform Analysis Software AS-70 reads data from WAVE files and offers a wide range of functions, including graph display, level processing, frequency analysis (FFT analysis and octave band analysis), file output, and playback.



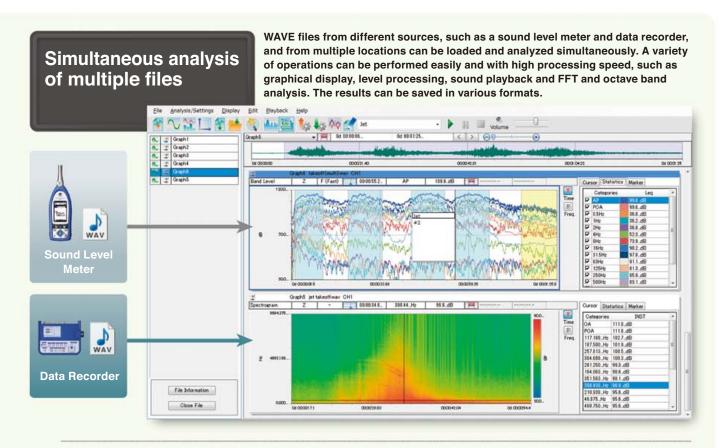


Vastly improved processing speed

Stress-free analysis of large data volumes

- Comparison of processing time to previous product. -

| | Time from file reading t | to processing result displa | ay |
|---------------------------|--------------------------|-----------------------------|---|
| Previous product DA-20PA1 | | | |
| | Processing time | *Measurement conditions | |
| | | Operation environment | CPU Core i5 3.2 GHz, 4 GB |
| AS-70 | | | Quantization: 16 bit, Number of channels: 4 |
| | | Data file recorded time | 1 h 24 min. |
| | P | Processing time | 6 min |



Setting method

Global

Settings can be made globally or for each graph individually

Graph-specific

When operating with multiple graphs, the analysis type (octave band analysis, FFT analysis) and analysis parameters can be set either globally or for each graph separately.

| Analysis Settings Settings of way-aform analy Input parameters for each (| sis conditions | 'Analysis'. | | | | | | - Mark |
|--|---|--------------------------|--|--------------------------|--|---|--|----------|
| ALL | (i Graph 1 | | (i) Graph3 | | 👿 Graphi | | Graph4 | |
| | Graph1 | | Graph2 | | Graphil | | Graph4 | |
| • | 44 | fire engin. | File | antiolarce | File | road traff. | File | bila |
| hannal Altration | Namel | Ch1 Calibrated | Charmel Celibration | On! Calibrated | Otavrel Calibration | Ohl net Calibrated | Channel Ceibration | Ok1 |
| HOP'NE ADDID | angling | Calibrated 40000Hz | Sampling | Coldrated 400004; | Sampling | 423504tr | Tuncing | 40000rg |
| lainch bread a Sanach for Analysis. Trian Triangeneration (Sanachar) Providence Triang (Sanachar) Providence (Sanachar) Triang (Sanachar) | Avalyse Setter Time <u>Free</u> Avalysis Type Time Weighting | (r Level + A + | Analysis Setting Two Preads Analysis Top: Freq. Weighting Time Weighting Rev. Weighting Rev. Weighting Pod Weighting POA Space | or (out. •) (2. •) | Anatom Setter Time, Frequencies, Freq. Weathing Freq. Weathing POA POA tower POA tower POA tower Weather Freq. Anatom Prints Freq. Research Anatom Points Anatom Points Anatom Points Anatom Points Anatom Points | 67 2 0A 0B 0B 0B 0B 0B 0B 0B 0B 0B 0B | Analysis Service Time <u>France</u> Analysis France Weighting | Norden . |





When playing back data with low recording level (because level range was too big, or bit word length too long), the volume may be very low, making the sound difficult to hear. The digital volume control lets you play such files at a higher volume.

| Car dd 00:00:00 0d | • • • • • • • • • • • • • • • • • | | Digital volume control |
|--------------------------|-----------------------------------|--------------|---------------------------|
| de la selata de selata a | | | |
| 00:00:21.40 | 00:00:42.81 | 00.01 :04.22 | |

Supported models (WAVE files recorded with the following products can be used)

| RIONOTE NX-42WR VX-55WR NX-28WR SA-78WR DA-20/40/21 VA-12 | |
|---|--|
|---|--|

General WAVE format files can also be opened (with some restrictions regarding sampling frequency and number of channels) **Specifications**

| Applicable star | ndards | IEC 61672-1:2013, JIS C 1509-1:2017 (Frequency weightings A, C, Z; Class 1) | |
|---|--------------------------------|---|---|
| | | ISO 7196:1995 (Frequency weighting characteristic G) | |
| | | IEC 61260-1:2014, JIS C 1514:2002 (Octave-band and 1/3 octave-band fi Iters, Class 1) | Ī |
| | | JIS C 1510:1995 (Frequency weightings for vertical and horizontal vibration) | |
| Supported | WAVE format | Sampling frequencies [Hz]: 64 k/51.2 k/48 k/32 k/25.6 k/24 k/16 k/ | |
| file format | | 12.8 k/12 k/5.12 k/2.56 k/2.4 k/1.28 k/1.2 k/1 k/512/256/240 | |
| | | Bit word length 16 bit / 24 bit | |
| Time graphs Display types | | Amplitude waveform, level waveform, band level, spectrogram | |
| | Frequency weighting | Z, A, C, G, C to A, Lvz (vertical characteristics), | |
| characteristics Time weighting characteristics | | L _{vxy} (horizontal characteristics) | |
| | | 10 ms, F (Fast), 630 ms, S (Slow), 10 s | |
| Frequency graphs | Display types | Octave band analysis, FFT analysis | [|
| Octave band | Bandwidth | Octave band: 0.5 Hz to 16 kHz (16 bands) | |
| analysis | | 1/3 octave band: 0.4 Hz to 20 kHz (48 bands) | |
| FFT | Window functions | Rectangular, Hanning, Flat-top, Hamming | |
| | Number of analysis points | 32 to 65 536 (base-2) | |
| | Overlap | 0 to 99 % | |
| | Data view | Power spectrum, power spectrum density (Power/Amplitude, Peak/RMS selectable) | l |
| Statistical | Amplitude waveform | Maximum value, minimum value, average value, variance, effective value | |
| processing | Level waveform/octave analysis | L _{eq} , L _E , L _{max} , L _{min} , L _N (5 types) | |
| | FFT analysis | Linear average, maximum value | |

| File save | Save formats | | WAVE format, text format | | | |
|-----------------------------------|----------------------------------|--|--|--|--|--|
| function | Successive ca | lculation results | Results saved as text at calculation intervals (1 ms to 24 h) | | | |
| Other | Differential and integral filter | | 1st order integration, 2nd order integration, | | | |
| functions | | | 1st order differential, 2nd order differential | | | |
| | HPF, LPF | | Cutoff frequency: any setting | | | |
| | Overlay | | Slope: 6 dB/12 dB/18 dB/24 dB (per octave) | | | |
| | | | Two frequency spectra can be shown as a superimposed (overlay) | | | |
| | | | graph, with optional difference indication | | | |
| | Real-sound | d playback | Play, stop, pause, digital volume control | | | |
| | Clipboard copy | | Screen, graph, list | | | |
| Recommended operation environment | | | | | | |
| CPU Intel Core i5 | | Intel Core i5 | 2 GHz or faster | | | |
| RAM | AM 2 GB or mor | | re, 4 GB recommended | | | |
| HDD | 20 GB or more (fr | | ore (free space), 100 GB or more recommended | | | |
| Display | | XGA (1024 x 768 pixels) resolution or higher | | | | |
| Supported | Supported operating Microsoft W | | /indows 7 Professional 32 bit/64 bit, | | | |
| systems | systems 8.1 Pro 64 b | | it, 10 Pro 64 bit | | | |



* Windows is a trademark of Microsoft Corporation. * Specifications subject to change without notice.

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Digital volume

control