

SO Analyzer

Revision 4.0

Update Note

- New Window Styles and Customizable User Interface
- Multiple VibPilot Devices for up to 32 Channels
- Temperature Logging alongside Dynamic Measurements
- Time Recorder Functions in Browser
- Network-Based Licensing with Detach Option
- Advanced Modal Test Options for GVT
- Enhanced User Default Functionality



New Window Styles and Customizable User Interface

The user interface has been completely revised and adapted to the latest window themes and styles. This includes all major components of the SO Analyzer giving the entire software an even more user-friendly look and feel.

The new multiple tab menus simplify the important step of measurement setup providing reduced steps for the more common applications. Furthermore the user can customize the selection steps to include more or less functions as required by the specific application.

Movable panes and menus further suit user operation, all menus undock and are re-dockable on any side to improve layouts particularly when using widescreen or multiple screen systems.



Support of Multiple VibPilot Devices for up to 32 Channels

The SO Analyzer now supports up to four VibPilot devices with a total of 32 input channels, 8 sources and high-speed tacho counters. VibPilot is m+p international's portable, fan-less 4- or 8-channel front-end with 24-bit resolution and USB 2.0 interfacing. Devices are synchronized by means of the clock in/clock out circuitry with no loss of their excellent measurement performance across multiple units.

Full support comprises all native sample frequencies from 1024 Hz to 102.4 kHz, sub-sampling down to 32 Hz and input modes including AC/DC floating or grounded as well as ICP user selectable on each channel. The high-dynamic range 24-bit sources support a wide range of modes including multi-random, swept sine, chirp, burst modes and arbitrary data replay.

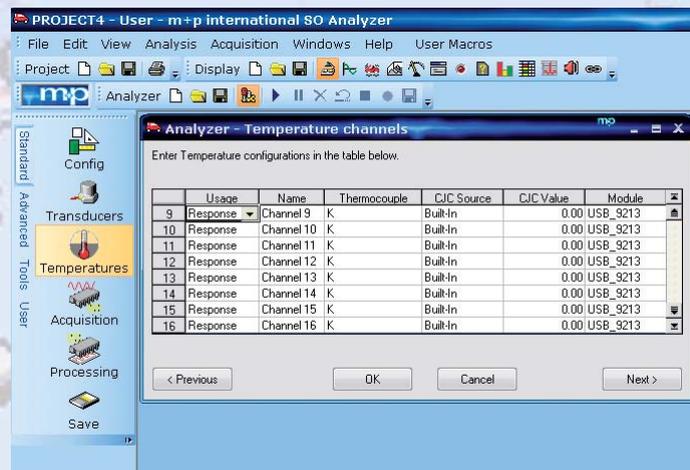


Temperature Logging alongside Dynamic Measurements

It is often useful to record thermal conditions while gathering dynamic data. This is now possible using either the National Instruments 9211 4-channel or the 9213 16-channel thermocouple input modules in conjunction with any of the other SO Analyzer supported dynamic acquisition hardware.

The lower sampling rates of the temperature input modules are automatically handled by SO Analyzer and the data is combined with the normal dynamic results so that they can be easily compared for event and other analysis.

Combined with the existing support for strain gauge input modules SO Analyzer becomes a highly versatile and flexible data logger alongside its comprehensive dynamic acquisition and analysis capabilities.



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Enhanced User Default Functionality

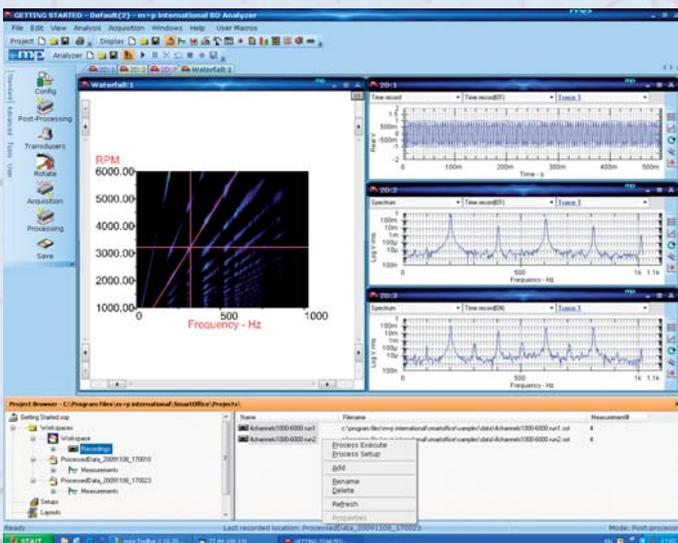
New user defaults can be defined for New Project, New Analyzer Setup and New Display Layout again assisting the user to personalise his functionality to best suit the common applications being performed. The associated MS Office style task panels provide the new feature-rich functionality while also simplifying the main menus.

The New Project task panel includes a new option to load setups and layouts from an existing project without the data, for example from a previously saved set of measurement runs. This speeds up operation and reduces the risk of errors when needing to repeat the same types of measurements.



Time Recorder Functions in Browser

SO Analyzer provides unlimited throughput to disc recording of time sample data including the option of multiple scheduled recording. To better manage these files a "Recorder" section has been added to the browser: This stores the path to the throughput (recorder) files and displays these in the browser. New throughput files are automatically logged with each measurement run and the user can also manually add links to any other time history files as required.



The contents of the throughput files are displayed and a fast overview of the time history data is computed directly from file for the chart display allowing fast review and comparisons between data. All this is done without the need to load the entire file into memory so is capable of handling very large data sets.

Another function is the ability to select one or more recordings for automatic post-processing using a single right click menu selection. To further enhance this feature normal measurement data or imported time records can be transformed into "throughput"

format in a single click and automatically added to the recording section for post-processing making SO Analyzer ideal for processing large quantities of time history data from any source.

Network-Based Licensing with Detach Option

SO Analyzer licensing options include softcode, hardware dongle and now an advanced network based capability. The new network-based option provides concurrent user access anywhere on the user network with the added option of detachable licensing for portable PCs or measurement systems etc. Other enhancements include comprehensive usage logging, the ability to mix and match different numbers of each software module and administrator control of logins across the network, eg to unload a user. Further protection has also been added to ensure a user can save critical data should the network go down during a session.

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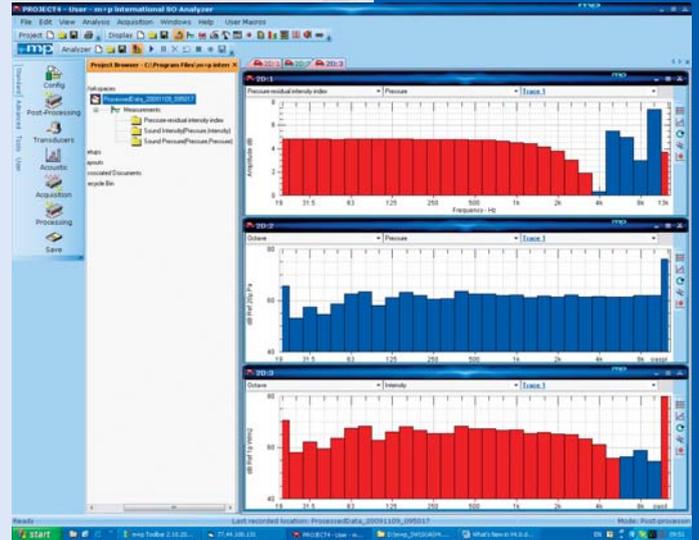
Advanced Modal Test Options for GVT

Advanced modal test additions include multiple force level controlled sources with user-defined phase that are available for both swept sine and stepped sine measurements providing normal mode excitation for accurate mode identification and analysis. To avoid over-testing the user can set a force control limit on any source and the sweep hold function in Scope mode stabilizes the system prior to the sweep for improved accuracy. Swept sine can now be synchronised directly with the internal source giving more accurate COLA tracking and freeing up an extra input channel. Using the normal mode MIF function enables quick validation of FRF results and the linked FRF-Nyquist chart function allows for rapid review of many FRF results prior to full modal analysis.

Many other New Features

SO Analyzer Revision 4.0 contains many more upgrades, for example:

- Auto- and cross-correlation functions added to calculator and chart calculator list
- Online Pressure-Residual Intensity Index and Sound Transmission loss functions added
- Specific and transient loudness average results added
- Peak-peak time history function added to Save options
- Overlap results displayed real-time for waterfall mapping etc
- Online settings of all charts are re-activated by measurement start for easy management of both online and offline layouts and data review
- "Arrange by Row & Columns" chart placement functions added to optimize window arrangements following a user rough layout of any number of windows
- "Count" parameter added to browser for instant review of the number of measurements within each measurement group
- New installer to simplify installation and software upgrades with more robust operation across different language and security configurations



This Update Note provides you with an overview of the most significant product enhancements of SO Analyzer Revision 4.0. There are other new functions that make the SO Analyzer even more powerful and user-friendly.

The new software revision has resulted primarily from the close and valuable cooperation with you, our customers. We optimize the SO Analyzer continuously. Therefore, if you have any suggestions that could further improve our product offering for your application, please let us know.

SO Analyzer 4.0 is available now. Please do not hesitate to contact us.

Germany

m+p international Mess- und Rechnertechnik GmbH
Phone: (+49) (0)511-85603-0
Fax: (+49) (0)511-85603-10
sales.de@mpihome.com

Great Britain

m+p international (UK) Ltd
Phone: (+44) (0)1420 521222
Fax: (+44) (0)1420 521223
sales.uk@mpihome.com

China

Beijing Representative Office of m+p international
Phone: (+86) 10 8283 8698
Fax: (+86) 10 8283 8998
sales.cn@mpihome.com

USA

m+p international inc.
Phone: (+1) 973 239 3005
Fax: (+1) 973 239 2858
sales.na@mpihome.com

France

m+p international Sarl
Phone: (+33) (0)130 157874
Fax: (+33) (0)139 769627
sales.fr@mpihome.com

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