

## PSV 9.1 Scanning Vibrometer Software

Polytec's Scanning Vibrometer Software is the "brain" behind all PSV systems. The software guides and controls all measurement tasks. This includes setting measurement parameters and scanning the laser as well as acquiring, displaying, processing and exporting measurement data. The latest release, PSV 9.1, incorporates the most recent recommendations of the vibrometer user community, leading to improved system functionality and performance.

### How Can You Benefit from the Latest Innovations?

Polytec will design your personal software maintenance plan entitling you to receive your copy of the latest release.

### Further Information

Please consult the documentation delivered with your software, including release notes, for a detailed description of

- further improvements
- hardware requirements and compatibility
- supported software interfaces and bug fixes



### New Features

- Automatic 3D Alignment
- Improved High Contrast Laser Display Audio Output
- Extended UNDO / REDO in Acquisition Mode
- TEDS support
- Calculation of Damping Values
- Differential cursor: frequency readout
- 64-bit support
- Compensation in Time Domain

# PSV 9.1 Scanning Vibrometer Software Datasheet



# New Features in PSV 9.1

## **Automatic 3D alignment**

Machine vision is used to maneuver the 2 remaining lasers to one reference point indicated by 1 laser. This procedure works for all set-ups on smooth surface. Switching the lasers is no more necessary. Only the TOP laser is moved manually.



### **Your Benefit:**

- Speeds up the alignment process by a factor of 3

## **Improved High Contrast Laser Display**

The High-Contrast Laser Display improves the visibility and clarity of the laser beam on the live video image. Now the laser position is tracked and graphically marked improving the visibility and operability.



### **Your Benefit:**

- Improved alignment precision and point definition with shiny objects.

## **Extended UNDO / REDO in Acquisition Mode**

For acquisition settings, alignments, geometry and camera settings UNDO is now available.



### **Your Benefit:**

- Speeds up the setup process

## **TEDS support**

Support of sensors supporting the Transducer Electronic Data sheet (TEDS; IEEE 1451). The sensitivity specification of reference sensors is automatically stored in the A/D settings when connected to a PSV-F-500 Front-End.



### **Your Benefit:**

- Removes a source of error
- Speeds up the setup process

### Calculation of Damping Value

For damping estimations the Q factor and Zeta are added.



#### Your Benefit:

- Easy estimation of modal damping parameters for a first validation of FE results

### Differential cursor: frequency readout

In time domain when the cursor marks the points in time corresponding frequency value is displayed. Frequency components can be identified using this function.



#### Your Benefit:

- Quicker evaluation in time domain

### 64-bit Support

PSV is running as 64-bit application in a 64-bit environment. Allows access to data from other 64-bit applications via Polytec File Access (PFA). The complete RAM above 4 GByte is used.



#### Your Benefit:

- Enhances speed for large data files
- Improved overall performance in acquisition and presentation mode

### Compensation in Time Domain

The propagation delay of the decoder to a reference channel is now also compensated in time domain. Before the compensation was only applied in frequency domain.



#### Your Benefit:

- Timing between Laser Vibrometer and reference sensor can be used for analysis



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