The hardware can accept inputs from either contact probes, LVDT (for mechanical runout) or eddy-current proximity probes (for electrical runout). Data is collected at very low speeds (<10RPM) such that no dynamic vibration is present. Data is collected over complete revolutions of the shaft using a phase marker or tachometer signal to define the start and end positions. Signal processing techniques are used to measure the important runout parameters such as peak-peak amplitudes, RMS energy and the amplitude & phase of the main harmonic components. Runout measurements are analyzed and presented in a variety of forms.

Runout data is generally captured for one or more revolutions at a number of different positions along the shaft. The software allows easy setup of the test conditions, for example shaft descriptor, model, type, manufacturer, test description, position number or description and direction of rotation of the shaft.

Subsequent to a test or set of tests for a complete rotor an extensive set of summary and review reports may be generated both on-screen and in the form of printable reports created with both Microsoft Word® and Excel® using Prosig’s Intaglio report generation mechanism.

In summary Runout is an important phenomenon when analyzing shaft vibration particularly when using proximity probes. Provided runout can be measured accurately then it is possible to apply runout compensation by performing a vector subtraction to vibration measurements to produce a runout-free measure.