

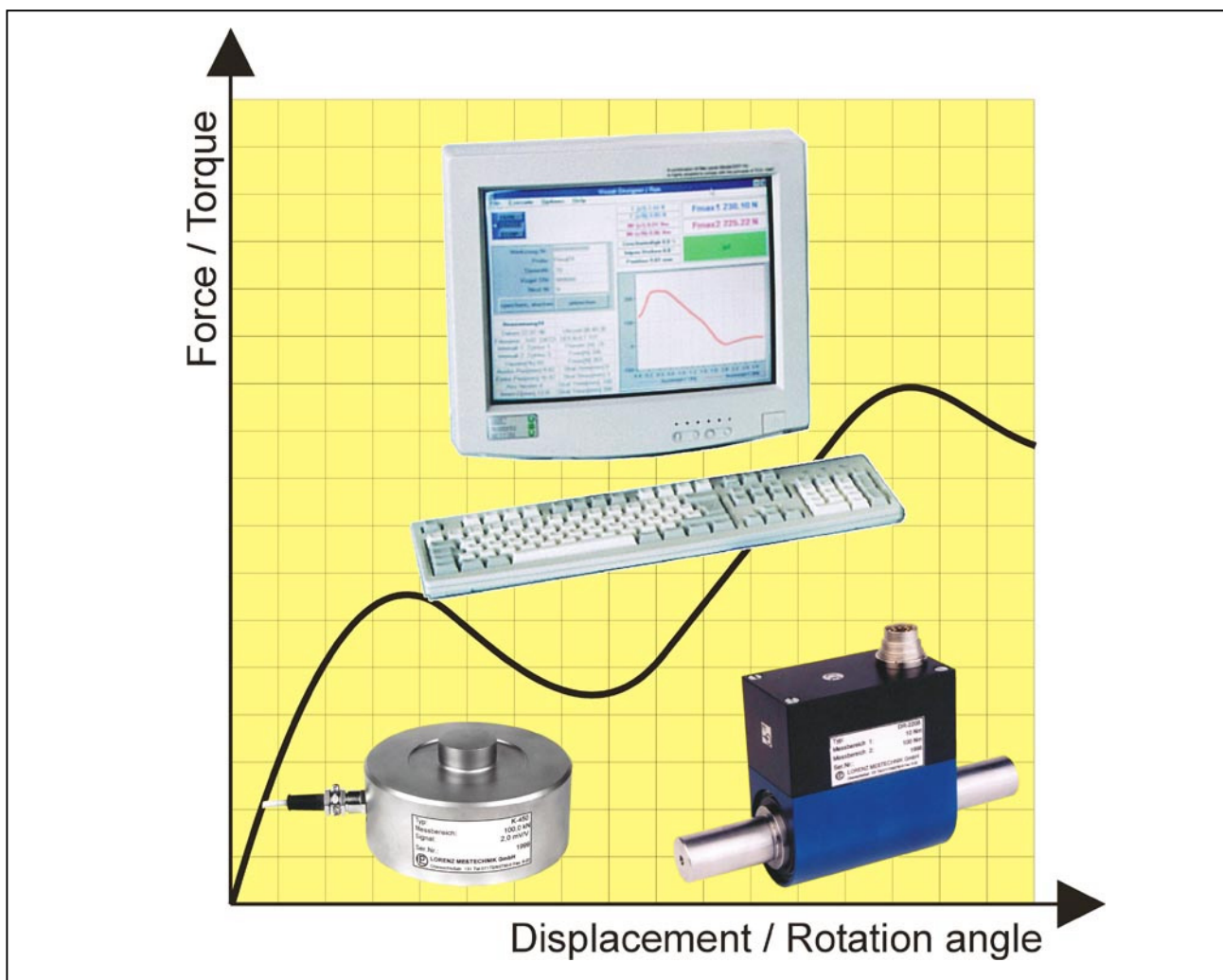
## System Solution on PC Basis

**LSL**

### Sensors-Measured Value Acquisition-Processing-Evaluation and Statistics

#### Application Examples:

- Motor Test Stands
- Research and Development
- Quality Assurance / Manufacturing Control
- Press-In Force Monitoring Systems
- Torque- / Torque Angle-, Force- / Displacement-Testing Units



In addition to the wide sensor program LORENZ offers system solutions (LSL) on PC Basis.

The client has a contact person for the complete task. He can focus on his main competences and will benefit of the professional competence of LORENZ Messtechnik GmbH.

Our versatile software-library allows quick implementation of customized measurement tasks.

## Application Examples

Typical applications are characteristic acquisitions. Single or several measuring signals, which are acquired - depending on time, displacement, angle or other measuring signals - are processed.

Evaluations: According to demand, Min.-Max. values, characteristic increase or characteristic comparisons can be displayed or printed.

Furthermore, the user himself has the possibility to analyze the characteristics (ASCII-data file) with a spread sheet.

### Examples for Force- / Displacement-Applications:

- Monitoring of press-in force operations: plug connectors, sockets, ball bearings
- Tension force measurements: material testing machines, feather testing machines, Electro magnets, push-out force measurement of ball joints, dowels
- Backlash measurement: bearing, joints, fits

### Examples for Torque- / Angle-Applications:

- Friction measurement of crank arrangements: windshield wiper gear, hinges
- Torsional measurements of friction clutches
- Strength examination of pressing processes
- General.torque- / torque angle examination, e.g. of turn switches, coil springs, stepper motors, lever gear

### Examples for Torque- / Speed-Applications:

- Efficiency measurement: gear box (2 torque signals and one speed signal option noise level measurement).
- Performance- / Efficiency measurement: motor test stands (torque- / speed signal and current- / voltage signal).

### Example for Combined Force- / Torque-Measurements Depending on Displacement / Angle:

Bolting technique: performance of a bolted connection from tightening torque to initial stressing or angle of rotation (see multi-components sensors of LORENZ Messtechnik product range).

## Scope of Delivery

Depending on the requirements we offer partial or complete solutions.

### Measured Data Acquisition

- Software, PC and Measuring Card
- Sensors

### Mechanical Configuration

- Testing Units
- Specimen

### Prices

Upon request according to customer requirement specifications.