

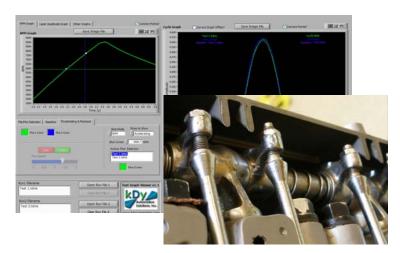
Custom solutions for process automation. Serving research & development, pilot production, and industrial customers.

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## Valve Train Test System

- High speed data acquisition system for detailed measurements at high RPM (100kHz each channel)
- Laser, proximity sensor gauge, strain gauge and load cell measurements available
- Test Viewer permits analysis of sensor data directly against camshaft position.
- Complete, recipe-driven RPM sequence testing
- Animation playback of cycle data



## Overview

A championship NHRA<sup>TM</sup> drag-racing team approached KDY about increasing the capability of their valve train testing to include many different types of sensors and more robust analysis of collected data.

## Machine Control and Data Acquisition

The KDY custom solution included a robust user interface for recipe entry and machine control, a state-of-the-art data acquisition system that including a high-performance A/D converters, signal conditioning for strain gauges, load cells and proximity sensors, and digital channels for software control of console switches. The system is based on National Instruments TM PXI based data acquisition hardware.

## Data Viewing and Analysis

KDY developed a unique "slice cursor" feature the user may scroll through run data by time or RPM and observe one full cycle of data for each sensor at a specific RPM value. Using the animation and playback feature, whole runs may be viewed as a "movie."

