

## Data Acquisition Helps Veterinarians Assess Animal Gait

---

To assess the effects of leg or hip injuries in horses and dogs and develop treatment, it is helpful to veterinarians to evaluate the gait patterns of the animals. Sharon Software, Inc. has developed software for a PC-based data acquisition system that is currently used for research and clinical service at sites throughout the United States and Canada.

In a typical system, a PC collects data from one to four biomechanical force plates installed in a floor or on a track. The PC, running Windows® 95 or 98, is equipped with a Data Translation [DT3002](#) PCI data acquisition board. Data is acquired by the board as an animal walks or runs across the force plates. Optional photocells can also be used to measure velocity by implementing an additional analog channel on the DT3002.

In animals, there are always two strikes on the force plate (s), one fore and one rear, on the same side. Sharon Software's Acquire™ software separates the strikes into individual records for analysis, and measures x, y and z forces from several trials to judge consistency. A plot of the center of pressure is also provided to confirm that the strikes were completely on the force plate each time. Computed variables include peak forces, areas under the curves, slopes and durations. Data can be printed and exported to spreadsheets or ASCII files.

Sharon Software engineers used Data Translation's DataAcq SDK software development kit to implement the DT3002. It enabled them to easily manage the details of the board interface in the Windows environment, speeding software development.

For more information, click on [DT3002](#) or call (800) 525-8528.