



# WALKWAY™ SYSTEM

multi-step analysis for animals



Walkway™ is a customizable low profile floor mat system that captures multiple sequential steps for analysis of animal limb forces, plantar pressure, center of force trajectory, and gait. The system provides gait parameters such as force per limb, stride length, and velocity for objective and quantified analysis. It can be used clinically for initial assessment or after treatment to confirm efficacy, and in research to answer hypothetical questions. The Walkway's modular design allows you to choose the system sensing area and sensor resolution. A protective covering may be placed over the platform for ease of cleaning without perturbing gait.

The software provides automated calculation of an array of gait parameters with two operating modes: bipeds and quadrupeds. For two-legged animals, such as birds and monkeys, specific parameters are calculated. For four-legged animals, such as dogs, horses, cats, rats, sheep, and cows, the gait parameters are more extensive and ratios are calculated between left front, left hind, right front, and right hind. The software calculates values for step and gait time, force per limb, hoof/paw pressure, distance, velocity, and cadence. It also provides individual data for the left and right hoof/paw in regards to the gait cycle, step-stride, and symmetry, as well as differential data between left and right hooves/paws.

Veterinarians and researchers use the Walkway to treat, investigate, and study animal weight-bearing and gait strategies. The system provides data for answering research hypotheses and for clinically treating hoof/paw and limb problems, gait dysfunctions, and other disorders such as lameness and neuromuscular related issues.

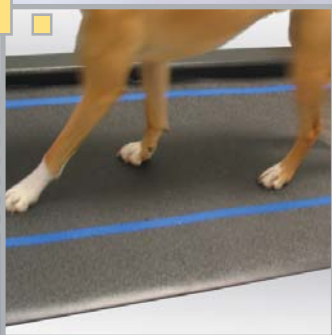
## APPLICATIONS:

- Study laminitis, osteoarthritis, and hip dysplasia
- Quantify gait patterns over several strides
- Identify asymmetries and pressure profile discrepancies between front and hind or left and right hooves/paws
- Monitor improvements in strength and weight-bearing
- Assess high or low pressures and deviated Center of Force trajectories due to lameness and perturbed gait

## BENEFITS:

- Automated calculation of gait parameters
- Analyze the relationship between multiple foot strikes and save time on analysis
- Speed healing time
- Evaluate limb and hoof/paw vitality
- Objective documentation of mobility issues

### 1 Collect



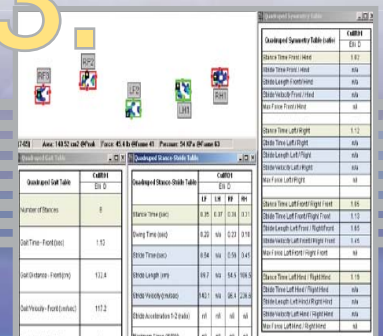
Several configurations available to allow for multiple hoof/paw strikes

### 2 Review



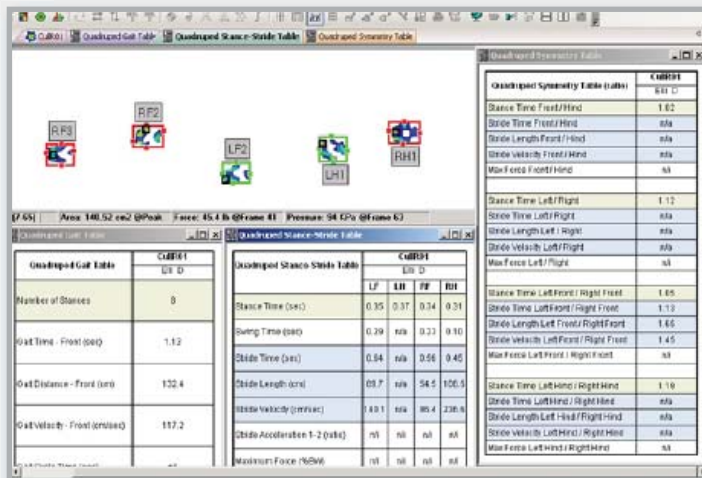
Review 2-D or 3-D data; identification of hoof/paw strikes leads to graphs and charts of parameters

### 3 Report



Automated reporting reduces the time and labor in understanding gait

## WALKWAY SOFTWARE



Shown above are pressure profiles and tabulated gait parameters

Sensor & System Specifications			
Walkway System	Standard	High Resolution	Very High Resolution
<b>Subject Animal</b>	Horse, Dog, Sheep, Cow	Monkey, Cat, Bird	Rat
<b>Sensor Technology</b>	Resistive	Resistive	Resistive
<b>Model</b>	3150 or 3150E	7101 or 7101E	5101
<b>Spatial Resolution (sensels per area)</b>	1.4 sensels/cm <sup>2</sup> (9.2 sensels/in <sup>2</sup> )	4 sensels/cm <sup>2</sup> (25 sensels/in <sup>2</sup> )	15.5 sensels/cm <sup>2</sup> (100 sensels/in <sup>2</sup> )
<b>Floor Mat Height</b>	0.225" (0.57 cm)	0.225" (0.57 cm)	0.225" (0.57 cm)
<b>System Scan Speed</b>	100 Hz ( <i>Evolution</i> ) 440 Hz ( <i>VersaTek</i> )	185 Hz ( <i>VersaTek</i> )	100 Hz ( <i>Evolution</i> )
<b>Connection Type</b>	USB 2.0	USB 2.0	USB 2.0

## WALKWAY CONFIGURATIONS\*

### Standard Resolution



System Configuration	Overall Dimensions	Sensing Dimensions	# of Sensing Elements
WE2 or WV2**	935.0 mm x 508.0 mm (36.81 in x 20.00 in)	871.7 mm x 368.8 mm (34.32 in x 14.52 in)	4,576
WE3 or WV3**	1370.8 mm x 508.0 mm (53.97 in x 20.00 in)	1307.6 mm x 368.8 mm (51.48 in x 14.52 in)	6,864
WE4 or WV4**	1806.7 mm x 508.0 mm (71.13 in x 20.00 in)	1743.5 mm x 368.8 mm (68.64 in x 14.52 in)	9,152
WE5 or WV5**	2242.6 mm x 508.0 mm (88.29 in x 20.00 in)	2179.3 mm x 368.8 mm (85.80 in x 14.52 in)	11,440
WE6 or WE6**	2678.4 mm x 508.0 mm (105.45 in x 20.00 in)	2615.2 mm x 368.8 mm (102.96 in x 14.52 in)	13,728

### High Resolution



System Configuration	Overall Dimensions	Sensing Dimensions	# of Sensing Elements
HRV2	993.1 mm x 542.3 mm (39.10 in x 21.35 in)	975.4 mm x 447.0 mm (38.40 in x 17.60 in)	16,704
HRV3	1484.6 mm x 542.3 mm (58.45 in x 21.35 in)	1463.0 mm x 447.0 mm (57.60 in x 17.60 in)	25,056
HRV4	1976.1 mm x 542.3 mm (77.80 in x 21.35 in)	1950.7 mm x 447.0 mm (76.80 in x 17.60 in)	33,408
HRV5	2449.1 mm x 542.3 mm (96.42 in x 21.35 in)	2438.4 mm x 447.0 mm (96.00 in x 17.60 in)	42,240
HRV6	2930.4 mm x 542.3 mm (115.37 in x 21.35 in)	2926.1 mm x 447.0 mm (115.20 in x 17.60 in)	50,688

### Very High Resolution



System Configuration	Overall Dimensions	Sensing Dimensions	# of Sensing Elements
VH2	259.1 mm x 340.1 mm (10.20 in x 13.39 in)	223.6 mm x 111.8 mm (8.80 in x 4.40 in)	3,872
VH3	370.1 mm x 340.1 mm (14.57 in x 13.39 in)	335.4 mm x 111.8 mm (13.20 in x 4.40 in)	5,808
VH4	480.8 mm x 340.1 mm (18.93 in x 13.39 in)	447.2 mm x 111.8 mm (17.60 in x 4.40 in)	7,744

\*Consult factory for longer Walkway.

\*\*Evolution (WE) or VersaTek (WV or HRV) electronics. Versatek shown below.

## SYSTEM SETUP (WV & HRV MODELS)

## RELATED OPTIONS



Cuffs/Handles & Sensors



USB Hub



Laptop/PC  
(supplied by user)



Video Synchronization

Contact us today for a demonstration!  
www.tekscan.com / 800.248.3669