Tactilus®

Human Body Interface Application

The Tactilus® Human Body Interface sensor system is designed to allow the user to collect pressure, magnitude and distribution data from selected locations across the human body.

Tactilus® Technology: Tactilus® allows the user to capture and record pressure conditions occurring in between any two contacting or impacting surfaces in real time. The paper-thin Tactilus® sensor is actually placed at the contact interface where it records and assimilates both pressure distribution and pressure magnitude on your Windows® based computer.

Physical human interface is every bit as important as graphical computer interfaces, but the world hasn't invested in analysis and research in these areas commensurate with the opportunity at stake. Tactilus® allows the flexibility of recording human interface pressure from multiple regions simultaneously. Tactilus® Human Body Interface sensor system is the most economical, scientific and user-friendly system for surface pressure mapping available today. Bringing human factors and ergonomic engineering to a new level, Tactilus® aids the test or design engineer in optimizing the tradeoff often made between performance and comfort.

User wearing Tactilus® Vest Sensor.

Positioning of the sensor and cuff at the knee.

Tactilus sensor wrapped around leg.

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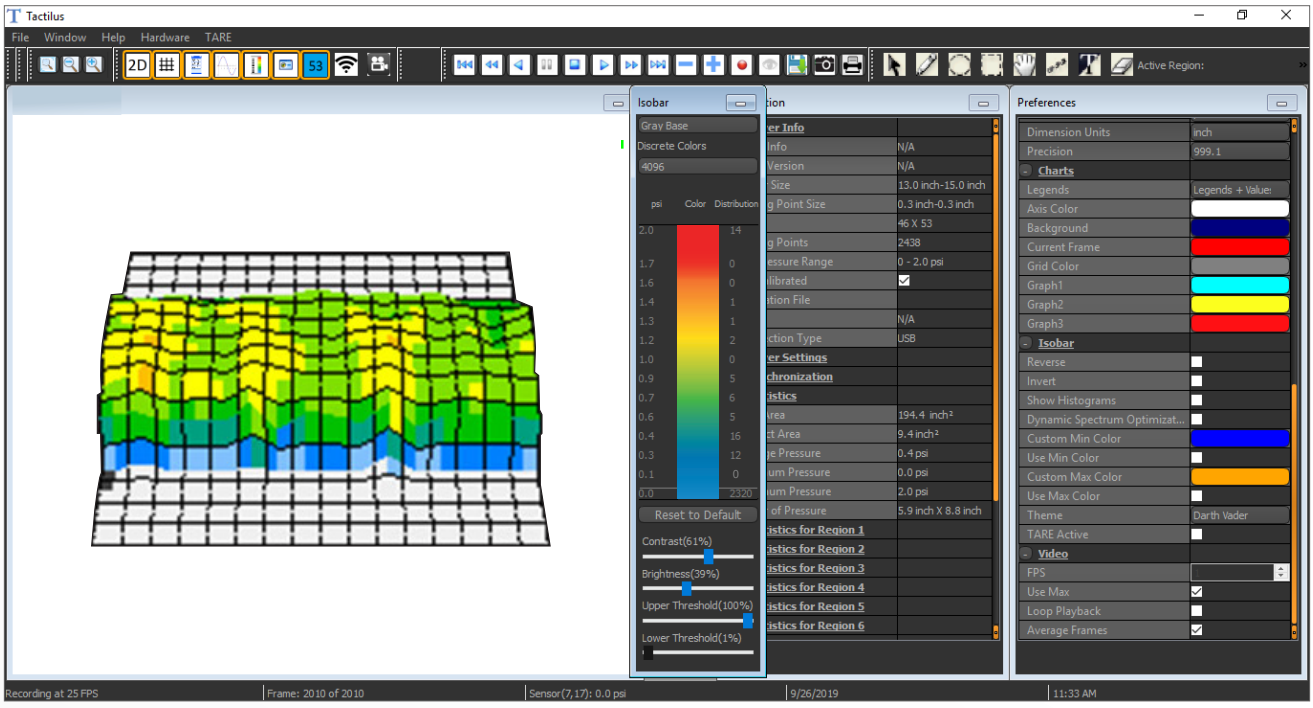
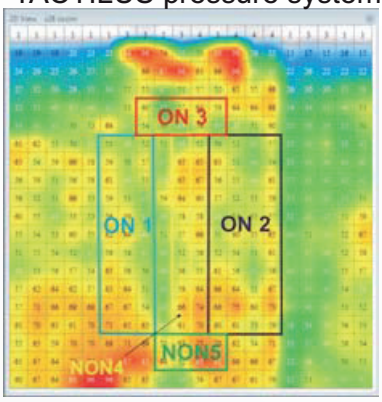
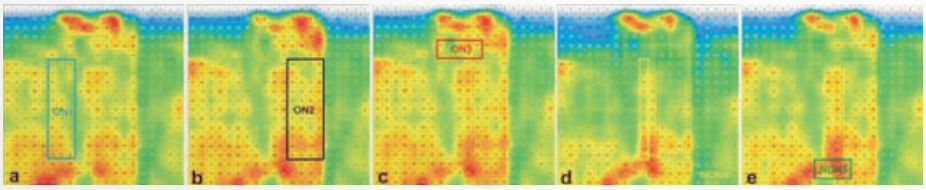


Visualization of pressure map on Tactilus® software.

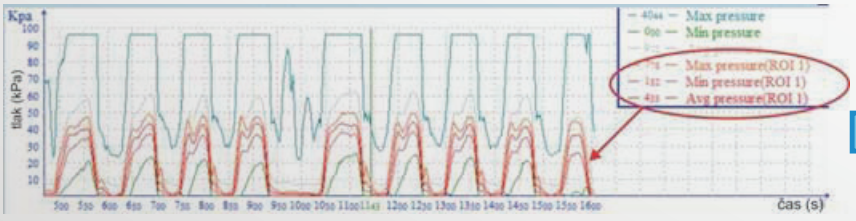
Assessed output from the TACTILUS pressure system



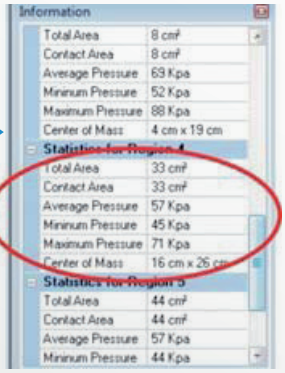
Pressure maps for loadable (a,b,c) and unloadable areas (d,e)



Dynamic pressure curve during a walking cycle



Value of the selected areas



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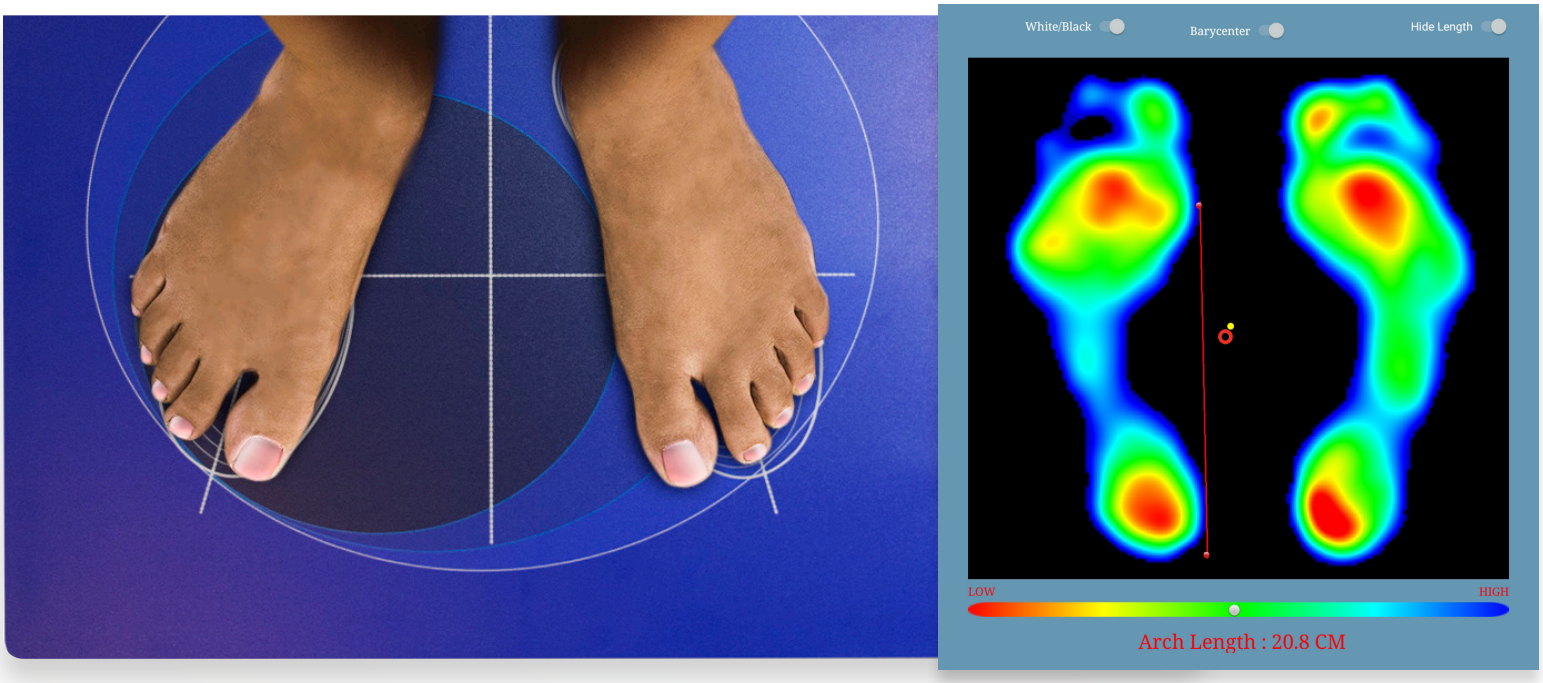

Tactius® Footplate sensor and software.

What it does: Tactilus® allows the user to capture and record pressure conditions occurring in between any two contacting or impacting surfaces in real time. The paper-thin Tactilus® sensor is actually placed at the contact interface where it records and assimilates both pressure distribution and pressure magnitude on your Windows® based computer.

The Innovation: Exciting advancements in conductive textiles have allowed us to develop a sensor that conforms better to your surface than ever before. Not only does the sensor conform better to curved surfaces but it stretches to alleviate shearing affects caused by shifting contact surfaces - an innovation that no other sensor company can touch! By biomimicking human skin we've taken surface contact pressure measurement to a whole new level.

The Tactilus® sensor consists of a series of interlaced lines that create a matrix with as many as 16,384 individual sensing points. Tactilus® Windows® based software communicates with the sensor up to a theoretical 1,000 frames per second - fast enough for impact force measurement. For users desiring direct interfacing with their own control software Sensor Products can supply an API.

The speed and size of this product has allowed us to create a truly differentiated product in our market. I think the bottom line is that you delivered and you and your team should be commended for your efforts and innovation." ***~Ron Douthit, Vertex Golf***

Sensor Specifications

Technology	Piezoresistive
Transmission:	USB and Wi-Fi
Platforms:	iOs, Windows, Android
Pressure Range	0 - 100 PSI (0 - 7 kg/cm^2)
Max Matrix	48 x 128
Max Sensing Points	8,192
Max Total Sensing Area	42 in. x 150 in. (106.7 cm x 381 cm)
Scan Speed	USB 190 Hz
Spatial Resolution	Starting from 8 mm
Thickness	2.5 mm or less
Accuracy	± 10%
Repeatability	± 2%
Hysteresis	± 5%
Non-linearity	± 1.5%

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