

# National Instruments Extends 'Smart' Sensing Capability to All Analog Sensors

*National Instruments announces an online database for Virtual TEDS, IEEE P1451.4 compliant electronic data sheets*

TEMECULA, CALIFORNIA, UNITED STATES, February 18, 2021 /EINPresswire.com/ -- National Instruments Extends 'Smart' Sensing Capability to All Analog Sensors  
Downloadable Electronic Data Sheets Give Plug and Play and Auto-Configuration Functions to Legacy Sensors

National Instruments today announced an online database for Virtual TEDS, IEEE P1451.4 compliant electronic data sheets that instantly give plug and play capabilities to legacy sensors. The result of a collaborative effort between National Instruments and leading sensor vendors, Virtual TEDS deliver the benefits of IEEE P1451.4 'smart [load cell sensor](#)' analog sensors, such as easy configuration and improved accuracy, to measurement and automation systems using traditional sensors.

"Virtual TEDS deliver to our large installed analog sensors user base an easy way to bring TEDS information into existing applications," said John Kubler, Kistler Instruments vice president of corporate development. "By incorporating the benefits of IEEE P1451.4 'smart' sensors to their applications, these customers can dramatically simplify the configuration and maintenance of complex, high-channel-count systems while protecting their investments."

IEEE P1451.4 smart [TEDS Load Cell Sensors](#) include an embedded, low-cost memory chip containing standardized transducer electronic data sheets (TEDS) that store important sensor information and parameters for self-identification and self-description. Virtual TEDS supply users with the same information for existing, traditional sensors -- eliminating the need to manually input this data when configuring a measurement system using legacy sensors. This not only reduces system configuration time, but also increases the general integrity and reliability of systems by reducing human error.

"A year ago, we introduced our vision for 'smart' sensors" said Dr. James Truchard, NI president and CEO. "Now, that vision is a reality. By teaming up with leading sensor vendors to deliver Virtual TEDS, we are making next-generation [force measurement](#) technologies available to today's measurement and automation systems."

Users simply enter the manufacturer model or serial number to access the extensive database of leading sensor vendors' electronic information via ni.com, and they are instantly provided with that sensor's specific scaling and calibration information packaged in the IEEE P1451.4 binary format. Users can access information from global sensor vendors including:

- LEM
- PCB Piezotronics
- Weed Instrument
- Honeywell Sensotec
- Kistler Instruments
- Endevco
- Macro Sensors
- Lion Precision
- Transducer Techniques, LLC
- G.R.A.S.
- Wilcoxon
- Watlow
- RDP
- Bruel & Kjaer

Once users download the electronic data sheets, they can use the Virtual TEDS Editor, a stand-alone Microsoft Windows application written in NI LabVIEW 7 Express to translate the file into script that the user can read and modify. With the Virtual TEDS Editor, users can view and edit sensor properties stored in the Virtual TEDS file, making large systems with hundreds of sensors easier to use and maintain.

To easily integrate both smart TEDS and Virtual TEDS sensor information into their LabVIEW applications, users can use the TEDS library for LabVIEW, an online database of LabVIEW virtual instruments (VIs) available for download on [www.ni.com/sensors](http://www.ni.com/sensors). The VIs in the TEDS library for LabVIEW implement basic TEDS management functions for reading and decoding TEDS sensors and editing and recompiling TEDS data according to IEEE P1451.4 specifications. Systems developers can use the decoded TEDS information to automate the setup and configuration of all sensors in their system.

Users can take advantage of the NI Plug & Play Sensor Advisor to find the right plug and play sensor for their application. Users can search, view and compare properties of leading plug and play sensors by entering sensor information, sensor types or application specifications.

#### About National Instruments

National Instruments ([www.ni.com](http://www.ni.com)) is a technology pioneer and leader in virtual instrumentation -- a revolutionary concept that has changed the way engineers and scientists approach measurement and automation. Leveraging the PC and its related technologies, virtual instrumentation increases productivity and lowers costs for customers worldwide through easy-

to-integrate software, such as the NI LabVIEW graphical development environment, and modular hardware, such as PXI modules for data acquisition, instrument control and machine vision. Headquartered in Austin, Texas, NI has more than 3,000 employees and direct operations in 40 countries. In 2002, the company sold products to more than 25,000 different companies in more than 80 countries around the world. For the past four consecutive years, FORTUNE magazine has named NI one of the 100 best companies to work for in America.

Readers may obtain investment information from the company's investor relations department at (512) 683-5090, by sending e-mail to [nati@ni.com](mailto:nati@ni.com) or on the Web at [www.ni.com/nati](http://www.ni.com/nati).

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