**dp** Solutions in Signal Processing

Power in Numbers

# SignalCalc® Savant

40 - 1024 input channels —————— **SignalCalc**

Networked chassis with 1 Gigabit Dynamic
Ethernet to host ——————— Signal

Analyzers

49 kHz analysis bandwidth,
all channels with simultaneous ———
storage to disk
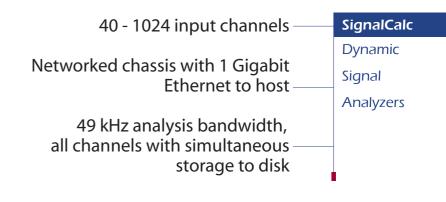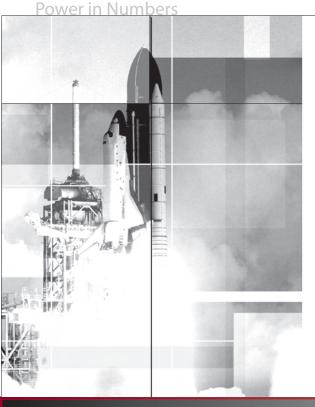
## Savant

powered by
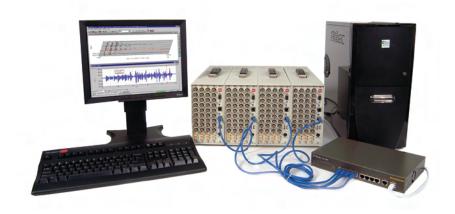
# ABACUS

**dp** Data Physics
corporation

# SignalCalc®
## Dynamic Signal Analyzers

# Savant

## Catering to the challenges of large channel count applications

SignalCalc Savant maintains realtime analysis, accurate cross channel measurement and recording rate performances for thousand channel systems. The distributed architecture further allows you to place data acquisition close to the measuring transducers thereby eliminating the error due to mismatched transducer cables.

## dp Standard Features

Auto Power Spectrum

Transfer Function (FRF)

Synchronous Average

Correlation

Histogram

Realtime Zoom

## dp Optional:

Multiple Input Multiple Output (MIMO)
Shock Response Spectrum (SRS)
Stepped Sine
RPM Based Measurements
Order Tracking
Demodulation
Rotordynamics
Waterfall and Spectrogram
Realtime Octave
Acoustic Intensity
Sound Quality - Loudness
Disk Recording, Analysis and DAC Playback
Event Capture
Environmental Data Reduction, Notching Prediction, Alarm & Abort

SignalCalc Savant is powered by Abacus, the modular DSPcentric signal analysis engine designed for high bandwidth and high precision. Savant incorporates the SignalCalc user interface acclaimed for its intuitive operation and ability to make the expert productive while allowing the novice to be comfortable.

## Facilitating Large Applications

The data acquisition and signal analysis system is at the heart of large channel count applications. It needs to be able to acquire 100's of channels of response transducers simultaneously while outputting multiple drive signals when external excitation to the structure is needed. It also requires sophisticated displays and automation features geared towards simplification of the data visualization and analysis. Last but not least, it requires data exchange with other software applications to compare and validate analytical models.
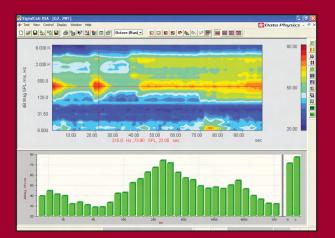
Setting up measurements is made easy by the inclusion of a transducer database and, TEDS support for automatic entry of transducer sensitivities, overall data management is simplified by the SignalMap and effective data visualization is achieved through the layout manager that provides unlimited personal display layouts.
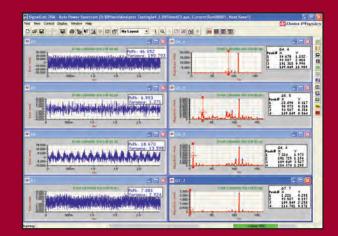
# SignalCalc **Savant**

## Extensive Functionality

Savant features the SignalCalc user interface and analysis software packed with usability features. The extensive functionality of the SignalCalc user interface provides you with easy, flexible set-up, display, and networking. Control panels, where test set-up parameters can be quickly entered into pop-up dialog boxes, can float or dock to a convenient location for easy access. Powerful graphics allow viewing of results with complete flexibility of screen organization. The sizes, locations, contents, and formats of control panels and graphics are entirely up to you. To facilitate exchange of data in a global test environment, Savant exports measurements, waterfalls, and test parameters to popular third-party formats.

## High End Noise & Vibration Solution

Savant comes with the full suite of noise and vibration measurement you can expect from SignalCalc. Over the years, SignalCalc has grown to a comprehensive set of measurement types covering general FFT analysis, data recording and playback analysis, environmental testing, structural analysis, acoustics, machinery diagnostics and reporting.

# Power in Numbers

## Flexible and Scalable

The distributed network architecture of Abacus, allows Savant to spread its 32 channel measurement units over large distances, by as much as 30 meters between units. Savant delivers high precision results over a 120dB to 150dB dynamic range and brings superior DSP power to handle the challenges of signal analysis applications requiring large number of channels.

Any SignalCalc Savant system may be upgraded in the field to add new hardware and software capabilities. Input and output channel count may be expanded without returning the module to the factory. Every software module may be subsequently added to expand the repertoire of a system initially purchased for more limited applications.

## Scalable Architecture

The architecture allows 8 channel boards to be combined to make 32 channel subsystems which in turn can be connected on a 1 Gigabit network to make a thousand channel system. The modularity allows a dynamics laboratory to use portable instruments of varying sizes which can be united to form a large channel count system for occasional use in larger applications.

No mater what size of system you choose Savant provides the same realtime bandwidth, the same high accuracy for cross channel measurements and the same gap free recording to disk during measurement.

Powered by
ABACUS

# Data Physics Corporation

**LiNG ELECTRONICS** **GW** **AIG SYSTEMS** **DERRITRON VIBRATION PRODUCTS** **ISO 9001:2008 certified**

## 1984 - 2009
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**Test & Measurement**
## INNOVATION

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Data Physics has been supplying high performance test and measurement solutions for over 25 years. With the addition of a full line of electrodynamic shakers to complement its vibration controllers and dynamic signal analyzers, Data Physics is a total solution supplier for noise and vibration applications.

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