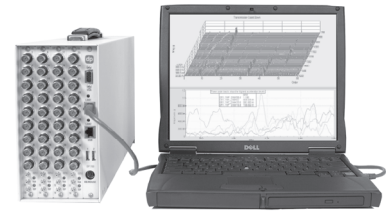


# Graphic User Interface

Engineered for SignalCalc Dynamic Analyzers

- ACE
- Mobilyzer
- Savant



## Graphical User Interface

At the heart of any SignalCalc dynamic signal analyzer is an intuitive, consistent user interface. From any perspective, they are rich with features, but their simplicity makes it easy to master these powerful analyzers quickly. From the world's smallest FFT analyzer, Ace, to the industry leading Savant which provides over 1000 channels of realtime measurements, these analyzers make it easy to move between field and laboratory measurements.

## Create your own Front Panel

Parameters are grouped logically, and users can select to display only those parameter dialogs required for a particular measurement. They may remain on the screen during data acquisition and analysis or be removed to allow full viewing of measurement results. Users can create their own individual on-screen arrangement of parameter dialogs and signal graphics as the instrument front end for each particular test of application.

## Shortcut Tool Bar

To simplify and quicken the measurement process, a shortcut tool bar gives access to all parameter dialogs. Saving test set up, making impromptu data saves, adding a quick comment to test notes, and re-tiling the screen are all done quickly through shortcut keys on the tool bar. A pull down layout list allows easy access to preset display layouts.

The measurement tool bar allows enabling or disabling of a given dialog with a single click as well as start, stop, resume, or end measurement keys.

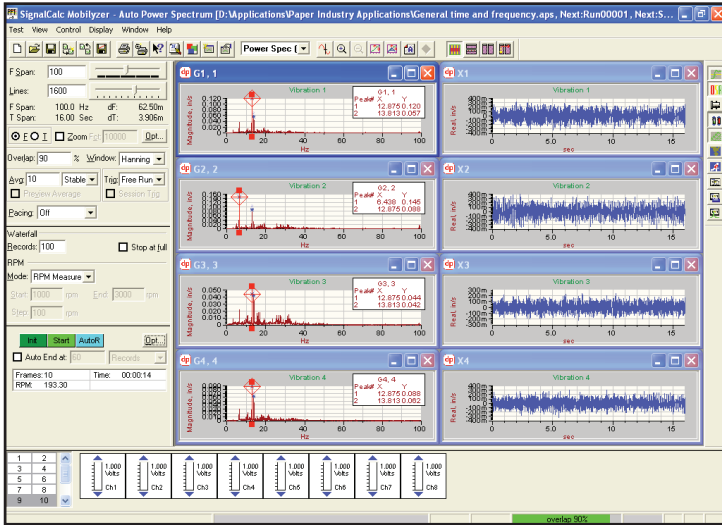
## Measurement Parameters

Simplicity and flexibility are evident in the way test parameters are setup using parameter dialogs. Test Control, Measurement/Sampling, Channels Table, RPM and Waterfall, Recorder, ADC Indicator, SignalMap and Engineering Units Table can be viewed anywhere on the screen, and most can be docked as a bar along the perimeter of the application window or completely hidden. Permanently anchored to the base of the window is a status bar for indicators and warnings.

## Presentation of Measurements

As a canvas for displaying measurement results, SignalCalc analyzers include a vast feature set to arrange data for effective presentation. The on-screen arrangement of data displays and parameter dialogs, called a "Layout," consists of one to 32 graphical windows, each with up to 16 signal traces. Graphical window arrangements and contents are infinitely variable, providing unparalleled flexibility for an intuitive measurement front end. The size and location of graphs, as well as signals within them, can be freely defined by the user. Any layout can be selected at any time, while the test in progress, or during data review and analysis.

SignalCalc analyzers provide additional control within each graph in a layout for clear presentation of results. Effective use of color helps differentiate signal traces, graph background, borders, annotation, axes titles and values, grids, captions, cursors and legends. Font style, size and color for any text used in annotation is easily selected. Line thickness and styles can also be defined to differentiate multiple signals in a single graph. Graph attributes can be changed to adapt based on user preference, and can be copied from one graph and applied to others.



## All Engineering Units

Regardless of what type of transducer is used, SignalCalc analyzers handle all types and calibrate the display in the required unit. A user expandable table lists all units, such as acceleration, mass, force, power, current, voltage, sound and temperature, with their SI equivalent. The relationships among units are maintained throughout the testing, which results in automatic conversion of data. For example, integration and differentiation to display acceleration, velocity and displacement simultaneously can be done automatically, with all conversion factors handled in the background. Since all units are available always, users can display both SI and Imperial units as desired. The table can be edited, just in case special units are needed for a particular application.

## Data Management

The management of data in SignalCalc analyzers is modeled after the familiar Windows Explorer-type structure, resulting in a highly intuitive interface. Signal Map, a pictorial interface for

managing data, identifies the results and intermediate signals during a measurement, and allows the selection of signals for saving and exporting.

Once the signals are selected, the rest is automatic. When Start is initiated, test parameters are stored, signals are acquired, analysis is performed, displays are updated and signals are saved and exported at the scheduled time. This remarkably automated and simple process allows test engineers to focus on the finer details of the system under test.

## Annotation, Cursors, Legends and Stats

Displaying data is only the first step towards problem solving. Extracting information from the displayed signals and reporting on findings requires a sophisticated tool kit such as that found in SignalCalc analyzers. A complete set of cursor functions enable a closer examination of test results. Single and dual cursors show x-y and delta values. Peak pick and harmonic cursors highlight up to 15 points and 100 points respectively, listing all values in a table for easy analysis. Sideband cursors provide fast and easy determination of modulating frequency sidebands distributed on one or both sides of a carrier frequency. All cursor functions are available on live data and while reviewing data post test. To help identify relationships among signals in separate graphical windows, cursors can be linked to move synchronously. Easy manipulation of live data to include display of a vast array of measurement parameters provides users with an unmatched combination of substance with style.

