

# Test Cell Integration Solutions...

Dynamometers • Controls  
Data Acquisition • Automation



**AUTOMATION**

# Cell Assistant™ for Windows®

Test Automation Software



## Control and data acquisition software you customize

Cell Assistant for Windows is a complete, PC-based dynamometer test data acquisition and control system, providing accurate and dependable data acquisition and test control with customizable on-screen data displays. This means that you get flexible and accurate control over all of your automated or manual dynamometer tests.

Use Cell Assistant to collect and record data from hundreds of channels, view data over a network or the Internet, and create on-screen instrument panels in minutes. Using DSBASIC, you can perform almost any conceivable test, no matter how complex.

< An example of custom VIP configuration

## What is a Virtual Instrument Panel?

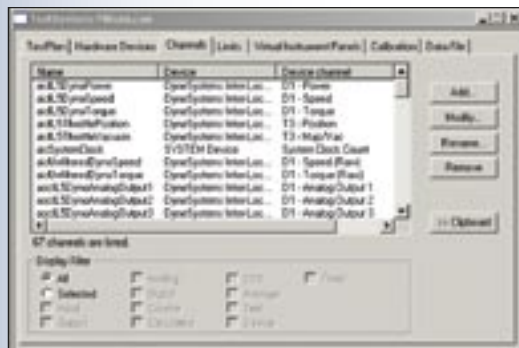
A Virtual Instrument Panel (VIP) is an on-screen, real time display of acquired data in the form of gauges, buttons, pilot lights, analog and digital meters, etc. You can create and customize each VIP to accommodate any test, even while a test is running. VIPs let you view every aspect of your test. You can display data on any workstation located on a local area network (LAN).

Specially designed virtual meters are smooth and accurate. Link VIP objects to channels and configure object borders to change color when certain limits are reached or exceeded. For example, an analog meter has a green border, showing normal operating conditions. If the limit linked to that meter meets or exceeds the defined value, that meter's border changes color to indicate when trouble occurs.

## Intuitively name your own channels

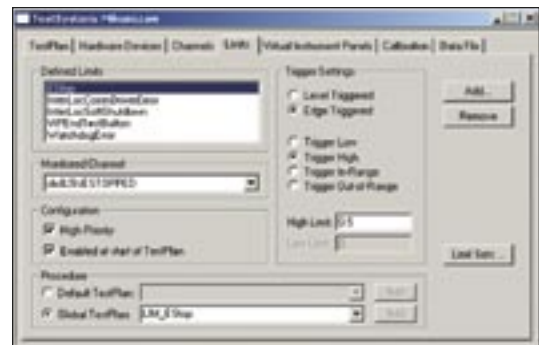
You decide the type and order of channels to record. Cell Assistant lets you name all channels, for intuitive recognition. All references to channels are user-defined names (not numbers), eliminating confusion. Once a channel is created, it can be displayed on a monitor, recorded to a disk, checked for limit control, or used in a calculation.

You decide the type and order of channels to record



You define channels. Cell Assistant does the rest, allowing you to monitor and record data from each channel.

Easily manage limits from a single screen



Limits monitor a given channel, protecting the device under test if the channel falls outside of the described range.

## Channel types include:

- Analog inputs and outputs
- Digital inputs and outputs
- Text inputs and outputs
- Counter channels
- Average channels
- Calculated channels
- Timer channels

## Calibration

Cell Assistant™ automatically saves calibration information, including:

- Calibration Time and Date
- Calibration Method
- Calibration Values
- Operator Comments

Calibrate equipment using three different methods:

- Zero
- Span
- Manual

[www.dynesystems.com](http://www.dynesystems.com)

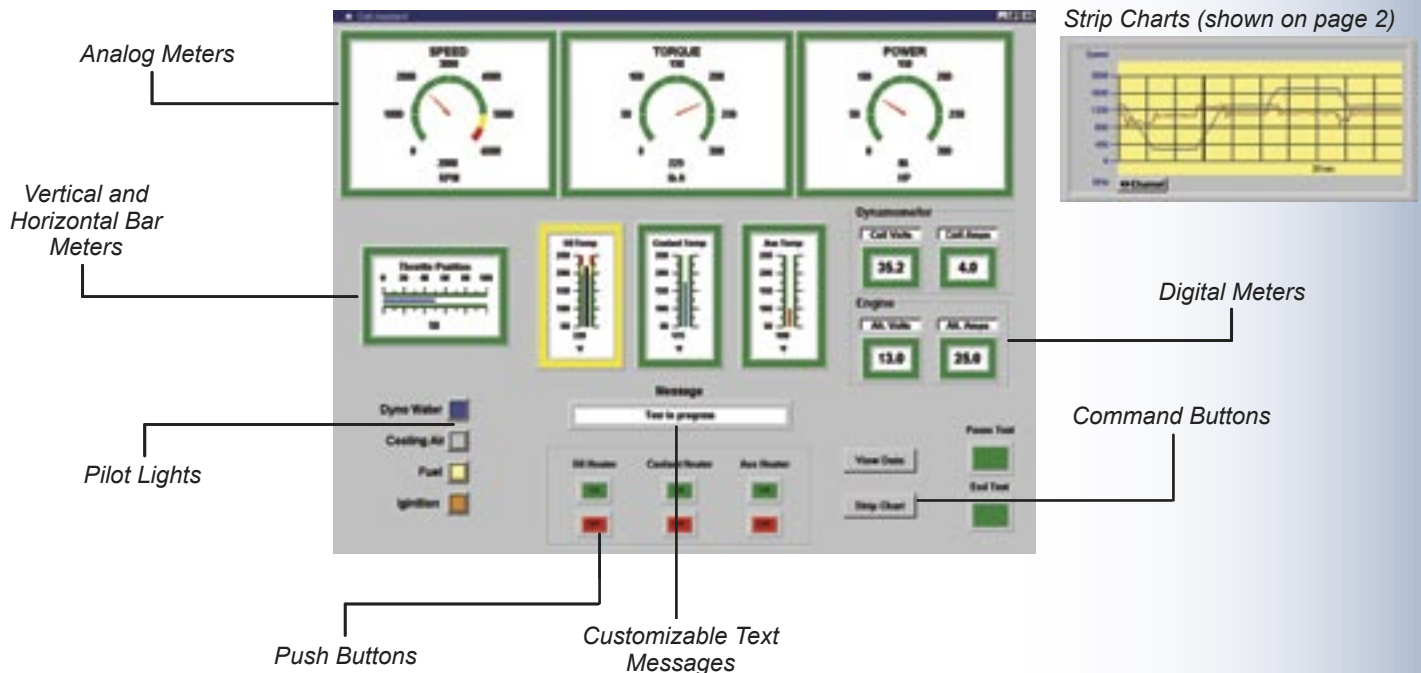
## What are Test Plans?

Cell Assistant for Windows uses Test Plans to control and automate all characteristics of custom test sequences. This gives you complete freedom to control a test, acquire data, calculate results, and prepare comprehensive reports.

To run a test, simply choose the Test Plan, select the run button, and begin testing. Test Plans are password protected to secure your Test Plan configuration. Cell Assistant uses a Global Test Plan to store commonly-used subroutines or functions. These functions can be executed within any Test Plan, eliminating tedious re-programming of commonly-used test procedures.

## What can you do in a Test Plan?

- Issue setpoint, ramp rate, and mode changes to dynamometer or throttle controls
- Store data into one or more data files
- Store operator comments in the data file
- Turn data logging on or off
- Control cell functions, such as ignition and fuel
- Alert test operators of important notes during a test
- Allow test operators to choose the next action in a test
- Automatically send E-mail at any time before, during, or after a test
- Open, close, and send messages to Virtual Instrument Panels
- Enable and disable limits and change their values. Whole groups of limits can be changed with one command
- Send commands to connected devices (e.g. command an emissions bench to calibrate, then download and record calibration data)



## What is DSBasic?

DSBasic is a programming language, similar to Microsoft Visual Basic for Applications™, that lets you easily create and manipulate custom test plans. DSBasic contains unique language extensions for easy access to channels, limits, and data files - as objects.

DSBasic's dialog editor lets you create user dialog boxes to customize your individual test sequences. DSBasic also provides a full-featured debugger for simplified test plan development.

DSBasic allows you to open and control other OLE-compatible applications. For example, you can automatically open, manipulate, save, and print any Microsoft Excel document, without operator intervention. DSBasic can also call Dynamic Link Library (DLL) functions.

DSBasic is easy to use, but if you need help, DyneSystems can create customized Test Plans and user interfaces for you. Just give us a call.

**Flexible • Intuitive • Accurate**

# Integrate All Your Test Cell Components with Cell Assistant

Cell Assistant can digitally interface (RS-232, RS-422, or IEEE 488) with most devices commonly found in test cells, including:

## Dynamometer Control:

DyneSystems Inter-Loc V, Dyn-Loc IV

**Throttle Control:** DyneSystems Inter-Loc V, DTC-1

**Multi-Loop Control:** DyneSystems Inter-Loc V

## Emissions Benches and CVS Systems:

DyneSystems XM1000, Pierburg, Horiba, California Analytical, Rosemont

## Data Acquisition Systems:

DyneSystems Companion II, Daytronic

**PLCs:** Modicon, Horner, Allen Bradley, Koyo

**Fuel Measurement Systems:** AVL, Micro Motion

**Barcode Readers:** Symbol Technologies

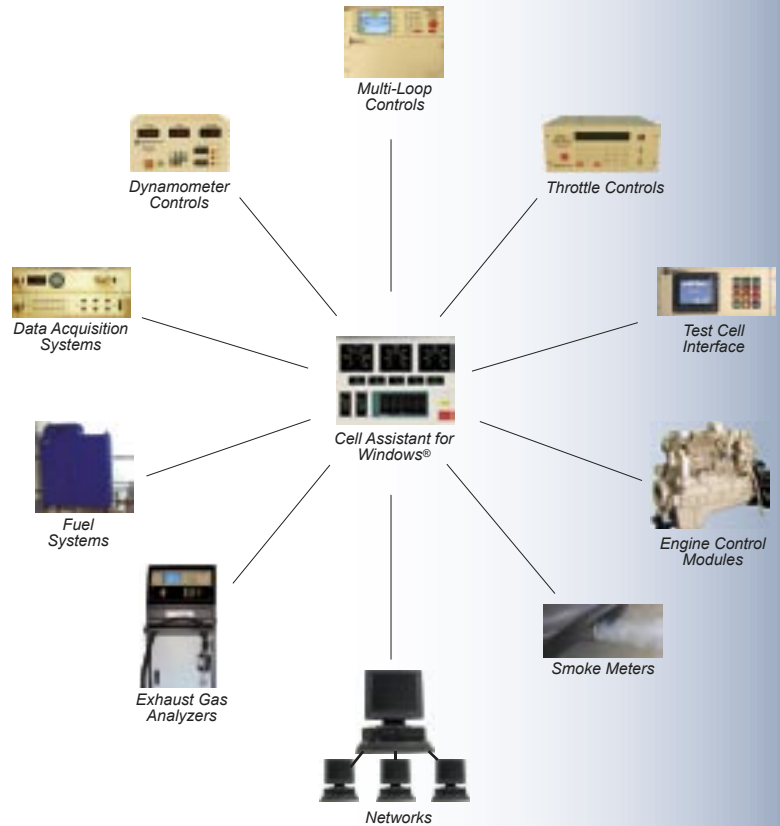
**Smoke Meters:** AVL

**Disk Files**

**Engine Control Modules**

**Driver's Trace**

**Custom Drivers**



## Utilize Your Data

During a test, Cell Assistant records data to a data file in ASCII comma separated variable format, which means you can import data into any standard spreadsheet, database, or analysis package, including Microsoft Excel®.

## Watchdog

If Cell Assistant ever shuts down due to a computer fault, the Watchdog initiates a system shutdown, offering additional protection to the device under test.

## Diagnostics

Diagnostic features allow reading of inputs and forcing of outputs. Inputs can also be forced for diagnostic purposes.

## Security

Cell Assistant offers three security levels for operation: User, Calibration, and Configuration



## Training

We offer several training alternatives for any DyneSystems product, providing the best solution to your training needs.

- On-site dynamometer test cell personnel training, on your new system
- DyneSystems training facilities utilizing complete demonstration system

< DyneSystems personnel receive ongoing product training



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