

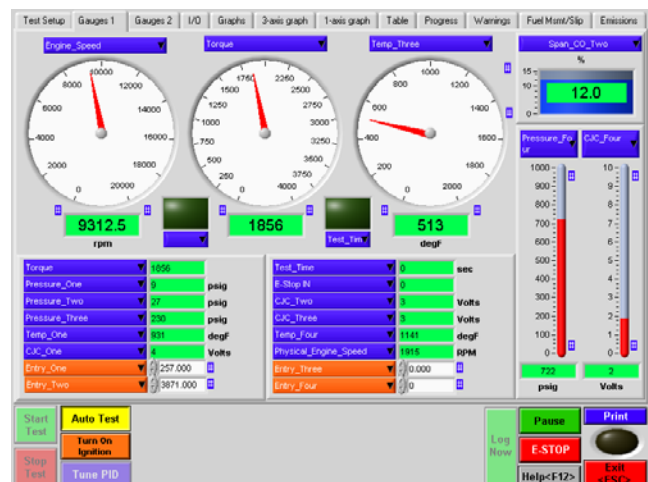
# DynPro, The Ultimate in Instrumentation

## FLEXIBILITY AND CONTROL

The heart of Taylor's instrumentation is the DynPro dynamometer control and data acquisition system. DynPro gives the operator complete control of the dynamometer functions and provides for comprehensive data acquisition of the test results. DynPro controls and acquires the data from the many accessories that complement Taylor's DynPro system including the Smoke Opacity Meter, the Emissions Gas Analyzer, the Engine Instrumentation Unit (for pressure and temperature channels), the Heavy Duty Electronic Interface (for ECM channels) and the Fuel Measurement Unit.



DynPro System Console Cabinet

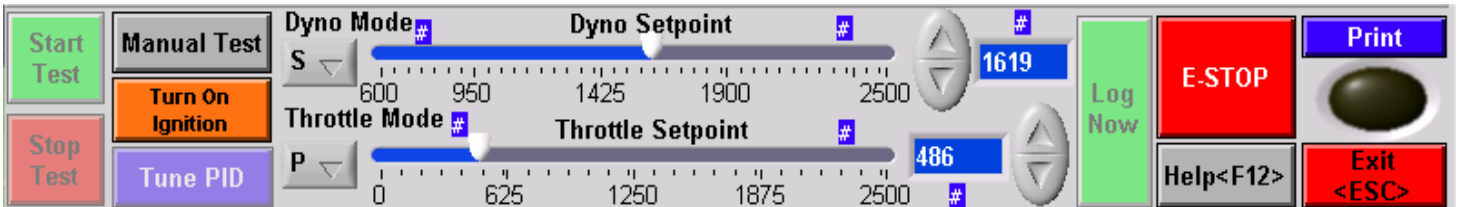


Sample Gauge Screen—Operator Selects Gauge Settings

DynPro is a PC based system and operates in a Windows™ environment. It encompasses the features of a lab grade control system and still delivers an operator friendly point and click interface. DynPro has an optional industrial grade console cabinet with a fan filter system, power management system and surge protector available. The durable yet functional console cabinet provides the flexibility of locating DynPro either in the harsh environment of the dynamometer test room or in the comfort of an operators control room.

## CONTROL, CONTROL, CONTROL

With DynPro you are in control. DynPro has a wide choice of selectable control modes. For engine dynamometer applications, the selectable engine and throttle (closed loop) control modes include engine speed, engine torque, and engine horsepower all available in either a manual or automatic mode. For chassis dynamometer applications, the selectable control modes include engine speed, vehicle speed, vehicle horsepower, and vehicle torque all available in either a manual or automatic mode.



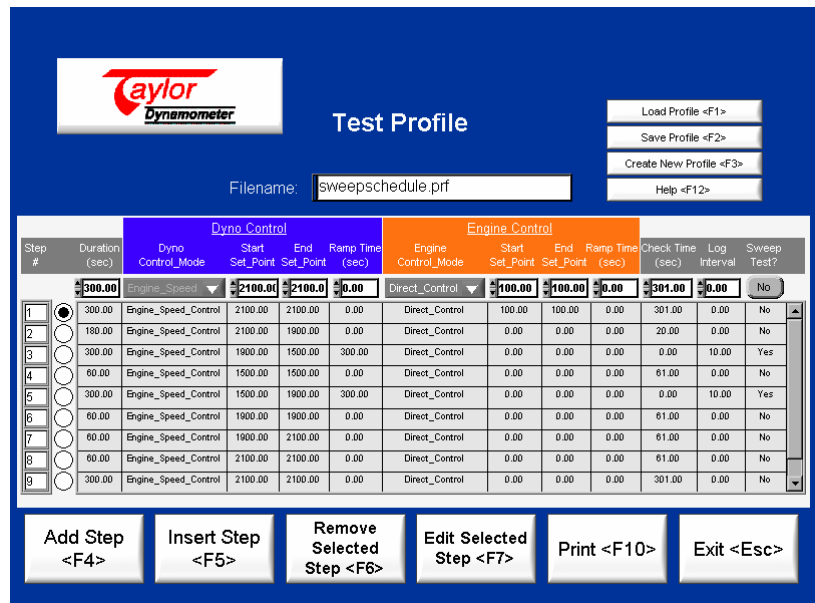
Manual Mode Control

## MANUAL MODE

In Manual Mode the operator simply chooses the method of control by clicking on the Control Type drop down screen and adjusting the slide bar to the desired Setpoint. Data can be logged automatically by setting the Log Time interval or at any time by the Log Now button.

## AUTOMATIC MODE

Save time and achieve consistent and repeatable results by using the Automatic Mode for dynamometer control. DynPro's Automatic Mode Profile Editor easily steps the operator through the creation of simple to complex Multiple Setpoint Tests that can be saved and retrieved for future tests. Once again, DynPro offers unparalleled flexibility and sophistication with Automatic Mode. Some of the advanced features include varying the Control Mode, changing the Throttle Position or altering the Stabilization Time from step to step in a Multiple Setpoint Test.



Automatic Mode Profile Editor - Sample Multiple Setpoint Test

During a Multiple Setpoint Test the operator can track the status of the test via the Progress Screen. The Progress Screen displays the Multiple Setpoint Test, identifies the current Step in progress, tracks the total time expired and the time expired in the current Step. Data is logged at the time intervals established with the Profile Editor.

## HOLD ON, YOU'RE IN CONTROL

For Chassis dynamometer applications, DynPro includes a Hand-Held Pendant for easy and complete dynamometer control from the cab of the vehicle. The Hand-Held Pendant provides the dynamometer operator with a color display touch screen graphical user interface. All the screens, all the functions and all the capabilities of DynPro are equally accessible through the PC or the Hand-Held Pendant. The only difference is that the Hand-Held Pendant incorporates a touch screen interface versus the traditional point and click (or keyboard) of a PC. For engine dynamometer applications, the Hand-Held Pendant is an optional Accessory.



Hand-Held Pendant With 7 1/4" x 9 3/4" Color Touch Screen

## QUALITY COUNTS

DynPro's Calibration Utility will meet the most demanding of Quality Programs, including ISO. Calibration options include Calibration from Manufacturer's Data Sheet, Calibration via Regression and a quick and easy Calibration Check. DynPro's Calibration History feature stores up to 15 entries per channel in a printable report format.

## YOU VIEW WHAT YOU WANT

The DynPro screens are easily customized to your preferences. Once established, the screen configuration can be saved and retrieved. Each indicator has a drop down screen with every channel displayed and available. Clicking on them and entering a new number can change the upper and lower ranges of the gauges.

## DYNPRO DOES THE ORGANIZING FOR YOU

A database file is automatically created and stored with every test. All files are saved and stored as comma-delimited text files. What does this mean? The files can be easily exported and viewed in any common word processing or spreadsheet program.

DynPro's Search Utility allows the dynamometer operator to quickly search through all data files by Keyword. Examples of Keywords include Customer Name, Vehicle Serial Number, Vehicle Plate Number, Engine ID Number, Work Order Number, Dynamometer Operator and more.

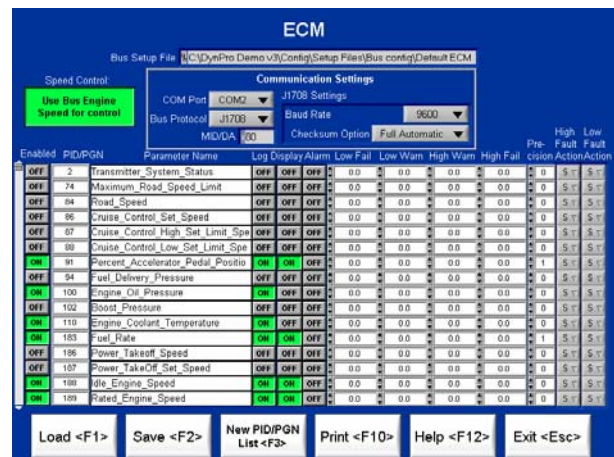
## SAFETY FIRST

All channels have Low Warn, High Warn, Low Fail, and High Fail alarm ranges. If outside the Warning range, a warning will be logged and displayed. If outside the Fail range, DynPro will perform one of three operator selected predefined shutdown actions.

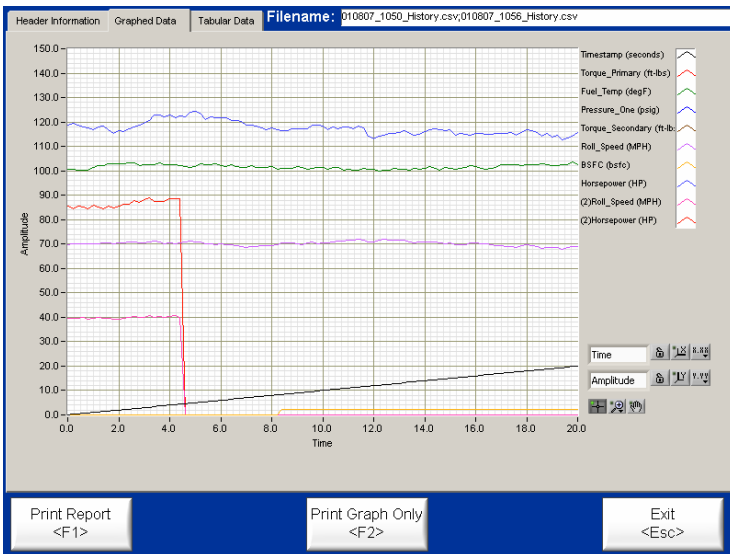
## LET'S TALK AND TALK

DynPro communicates with electronic engines using either the J1708 or J1939 bus protocols. This feature is included for chassis dynamometers and is optional for engine dynamometers.

Standard channel configurations can be created, saved, and retrieved with the Bus Communication System Setup. Alternatively, the operator can query the engine and will be able to view and select the channels to log, display, or print.



J1708/J1939 Setup Screen



Sample 1—Graph Report With Multiple Plots

Graphing options include a 3-axis graph that has three plots each with its own Y-axis and a 1-axis graph that can have up to 14 plots (one Y axis). Data from multiple test runs can be combined and compared in the same graph.

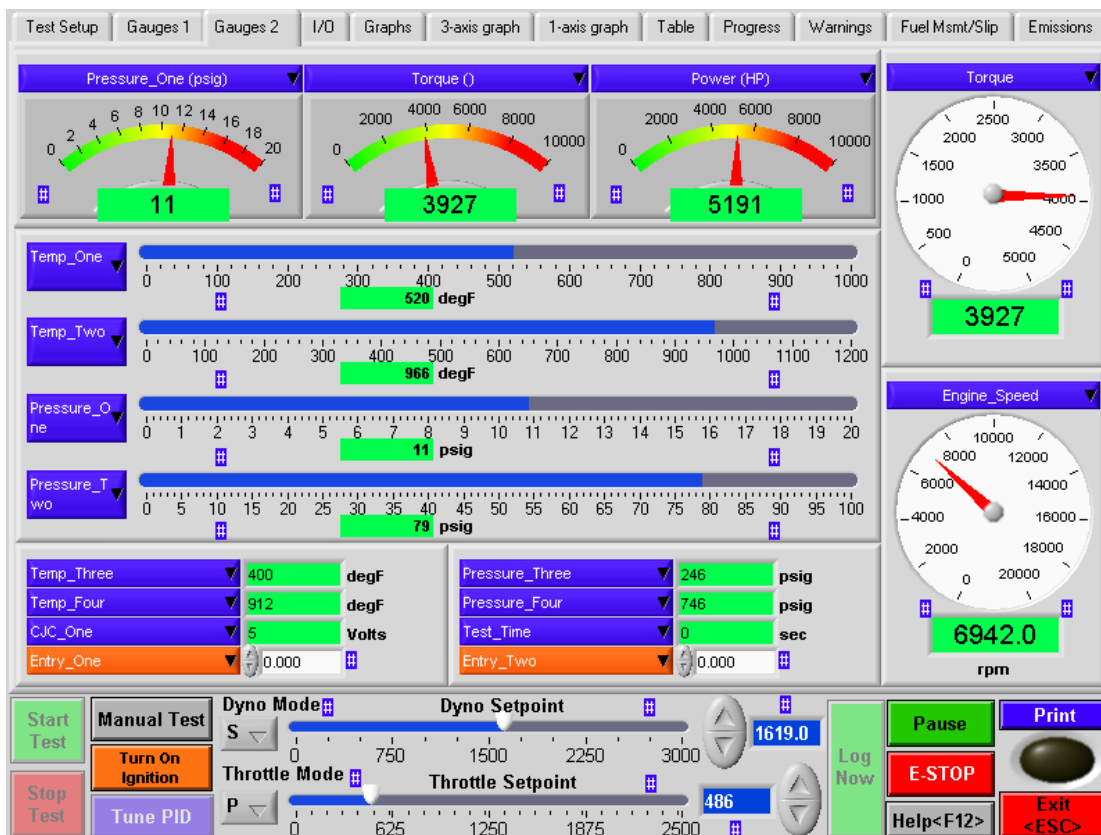
## WHAT ABOUT REPORTS?

In all cases the dynamometer operator chooses what data to log, what data to view, and what data to print or graph. All of these choices including the type of test (Automatic Mode) can be preconfigured. Both Tabular and Graphical report formats are available. Screen captures can be printed at any time. Reports can include your LOGO and up to three custom sales messages.

## IT'S SO EASY

Initially, a number of features will need to be configured to your specific preferences and requirements. Examples include: screen displays (gauges), and Automatic Mode Multiple Setpoint Tests. The configuration process is straight forward, simple, and similar for each feature.

What's next? The operator either retrieves and loads the customer file or enters the information for a new customer. A test and setup file must then be selected. From there, the operator will select manual or automatic mode and run the test. **No need to panic!** Help is a click away. Each DynPro screen is equipped with a **Help** Button that provides online access to the DynPro Users Manual.



Sample Gauge Screen

## COME ONE COME ALL

Any make, any manufacturer, any model, any style of dynamometer for testing engines in or out of the frame of the vehicle and DynPro will work for you. DynPro works equally well with waterbrake style dynamometers, eddy current dynamometers, DC dynamometers and AC dynamometers. With DynPro you can simplify your engine testing and standardize your training, operations, and procedures by using one and only one instrumentation system.