

Introducing a New, Integrated Real-Time PCM Data Acquisition and Processing System with Data Display and Recording.



FEATURES:

- Encoder Setup
- Engineering Units Conversion
- Automatic Decom Setup from Encoder
- Real-Time Recording Multi-streams, 20 MB/s
- Real-Time Display
- D/A Converter Setup
- Ethernet Output, To Multiple Work Stations
- Labview and Matlab Software Drivers

Herley Industries, in a joint effort with Acroamatics, has married the PCM encoder with the real time decommutation function to make a seamless PCM data acquisition and processing system for the missile and aircraft flight testing industry. The essence of the system is the ability to program the Herley PCM 770 flight test encoder or the PCM 880 missile encoder that format and setup information can be downloaded to the decommutator which will automatically set up to the encoder format. Once the decommutator is programmed, preset display formats can be matched to functions to be displayed for immediate real time processing.

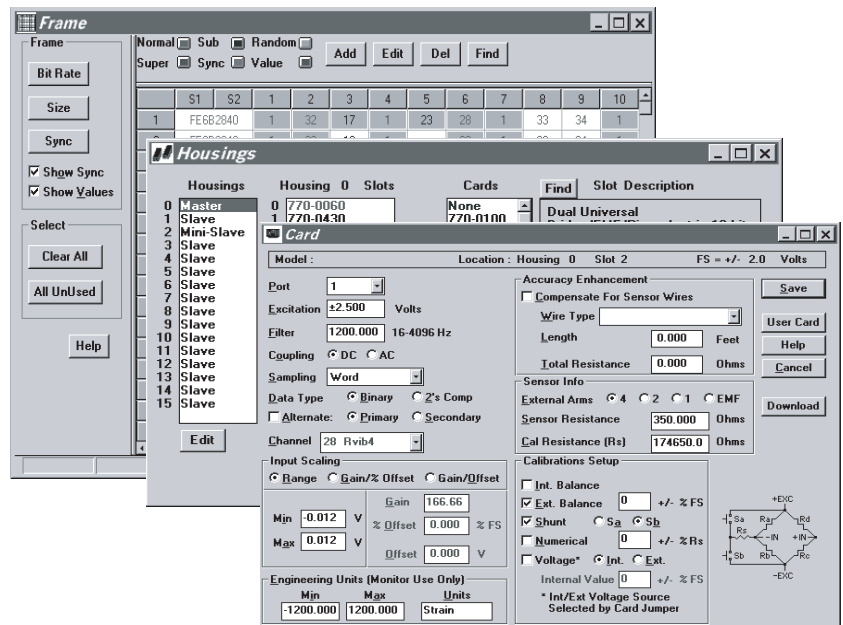
Software drivers are provided for the popular Labview and Matlab display suites commonly used in data telemetry processing.

A unique feature of the new data system is the built in data recorder. Multiple data streams with a combined data rate up to 20 MB/s can be recorded for later processing or reconstruction back to the original data stream.

Encoder Formatting

The Herley PCM 770 and 880 encoders feature a Windows based, user friendly, programming system. Using a set of software screens, the frame and hardware configuration can be matched to the customer's signal conditioning requirements for most any test requirements. Two independent formats can be stored within the encoder memory.

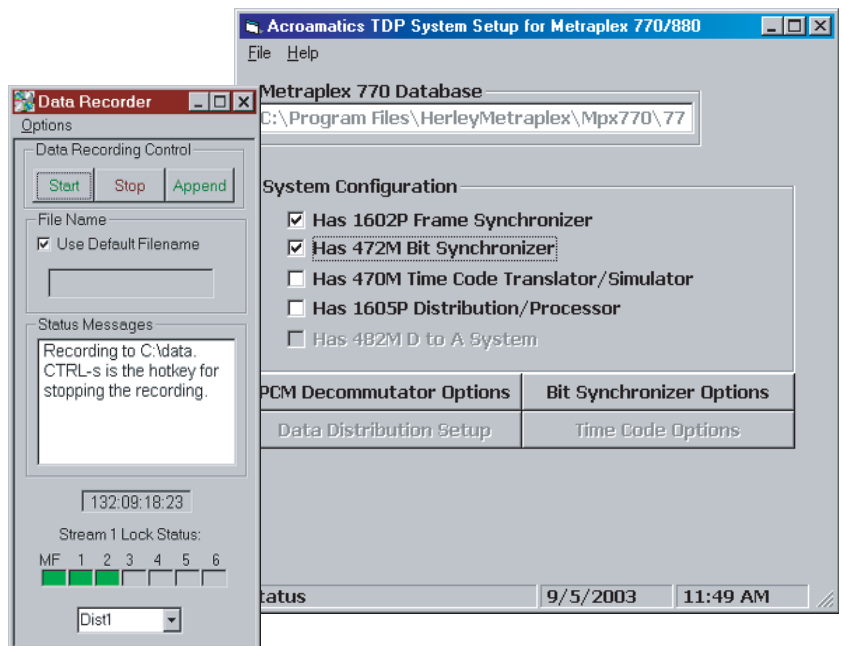
Each data measurement is assigned an ID tag and parameter name that carries through the system to the data displays.



Format Conversion

Once the PCM encoder is programmed, the configuration can be downloaded to a program in the Acroamatics decommutator to evaluate the format, set the key hardware parameters in the decommutator, build the frame makeup, and provide a table of the data measurements for display formatting. The decommutator hardware configuration must be identified. For data to be displayed, engineering unit conversion is provided for each measurand.

Data recording is provided in several formats; Serial PCM recording is provided for later playback in serial form, or on word boundaries for immediate data processing.



Data Display

Once data is available in the Acroamatics decommutator, selected measurands may be assigned to pre-configured real time displays or digital-to-analog converters. The real time display software offers tabular, histogram, and bar chart displays. By assigning each display to a "Function" key, these displays can be quickly changed during the test.

Acroamatics also provides software drivers for Labview and Matlab, two analysis programs for post-test analysis.

