Prosig Case Study

It Is Rocket Science

The digital control lines of the firing control sequence from solid propellant rocket motors are used to control a Prosig P8048, which measures vibration and pressure signals. The P8048 system is configured with a digital control module and custom acquisition software for transducer calibration, automatic data structuring and rocket test sequence measurement.

It Is Rocket Science!

A major UK manufacturer of solid propellant rocket motors partnered with Prosig to measure critical parameters during testing of new products. They rely on Prosig hardware and software to capture transducer signals during the firing of rocket motors and igniters during the development and testing.

Prosig provided two rack mounted P8048 which included additional digital I/O control lines for automated control of the ignition sequence.

Prosig's technical team worked closely with the customer to develop a custom application. This was designed to provide a step-by-step test sequence that would lead the user through pre-defined steps as it was imperative for each test that all steps in the test sequence were completed correctly as the data capture would need to be correct the first time as the ignition packs could only be used once. These pre-defined steps were developed for the custom application to ensure a successful test sequence.

- The user would define in detail the rocket motor to be tested and the test type and measurements required for that test.
- Calibration of the test transducers and storing the calibration information in a transducer database.
- A pre-firing check sequence to ensure that the all the transducers are working and calibrated within the accuracy required.
- Perform firing sequence and data capture

System consists of

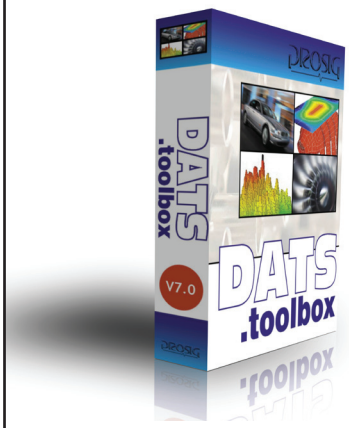
P8048

24-bit data acquisition system

2 x P8048 Chassis
12 x 8402 4ch IEPE, Direct
4 x 8424 Digital IO

DATS

Analysis software



1 x DATS.toolbox software

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