

## TDAS- Thermal Data Acquisition System

Proven, flexible data acquisition system to support flight hardware thermal vacuum tests

Dynavac's Thermal Data Acquisition System (TDAS) provides real-time temperature display, alarming, and process data recording from the flight hardware. The robust design platform supports various testing parameters, acquiring test article signals and collecting telemetry data from up to 1,000 input signals from the test article.

### System highlights

- Dynavac's Thermal Data Acquisition System (TDAS) acquires test article signals and collects telemetry data from multiple types of input signals
- System is comprised of a main DAQ server, operator client system, and DAQ hardware
- Real-time data logging and retrieval capability
- Thermocouple patch boxes route signals from inside the Thermal Vacuum Chamber through chamber penetrations to the data acquisition system
- 128 to 1,000 thermocouple channels to meet data acquisition requirements



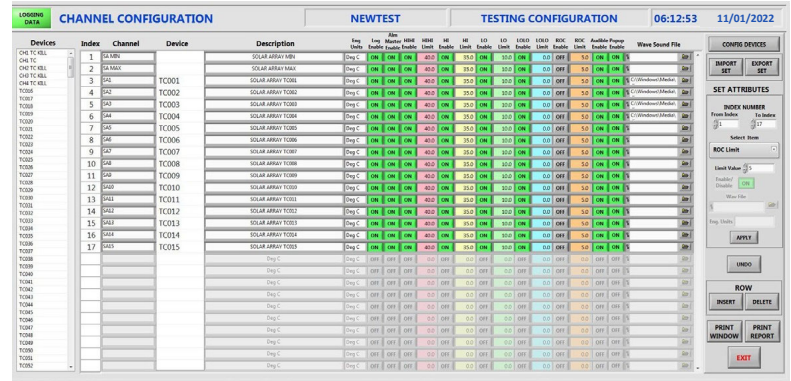
# TDAS- Thermal Data Acquisition System

## Features

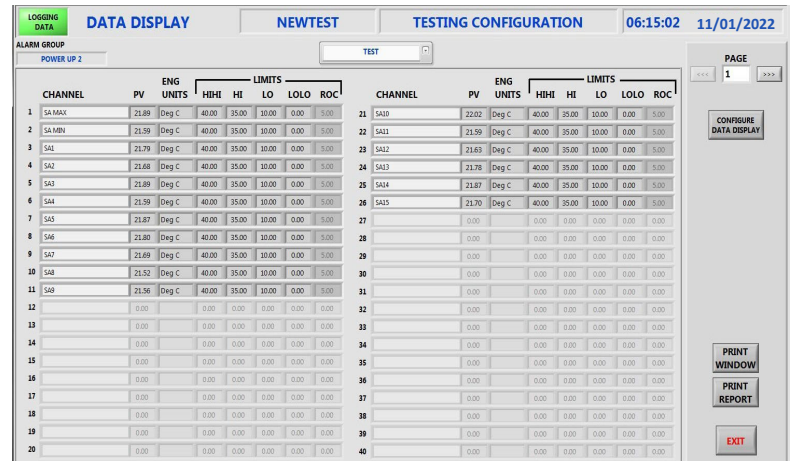
- Multiple data logging and alarm configurations can be set up, stored, recalled, edited, and reused
- Alarm conditions and alarm groups can be created for applicable test sequences
- Available Alarms: Hi-Hi, Hi, Lo, and Lo-Lo
- Ability to enable/disable alarm pop-up
- Configure, display, and log virtual channels
- Change multiple channel parameters through Dynavac's EZ Update menu trend screens with up to 10 channels each
- Picture screen to display images of test article, able to display 40 channels per picture

## Hardware and software

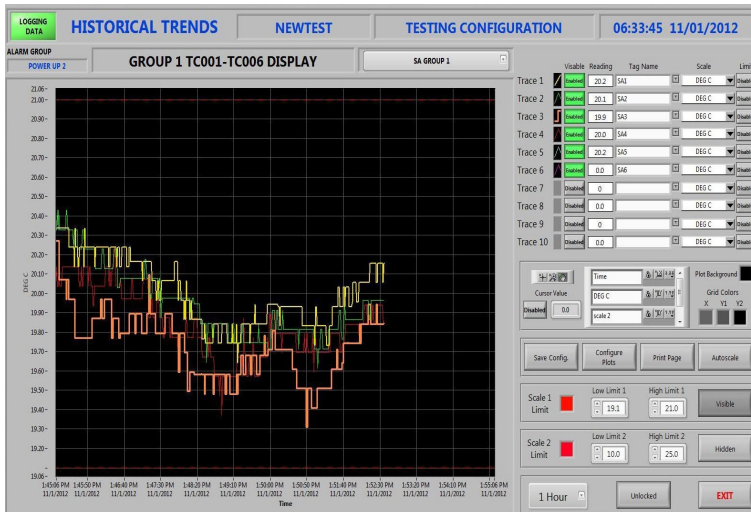
- Robust COTS hardware:
  - PXI controller/ server
  - PXIe chassis
  - Thermocouple input modules
- Standard, widely used software:
  - National Instruments LabVIEW
  - Microsoft SQL database



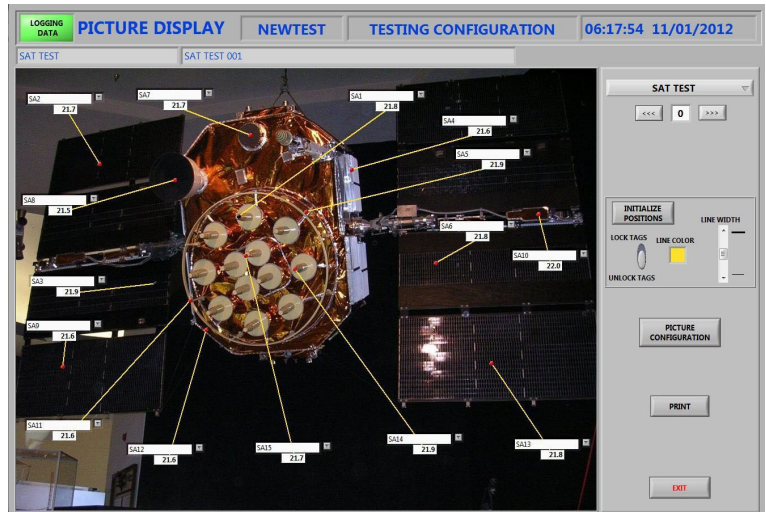
TAG configuration screen



Status display



Trends display



Test article and real time data display

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