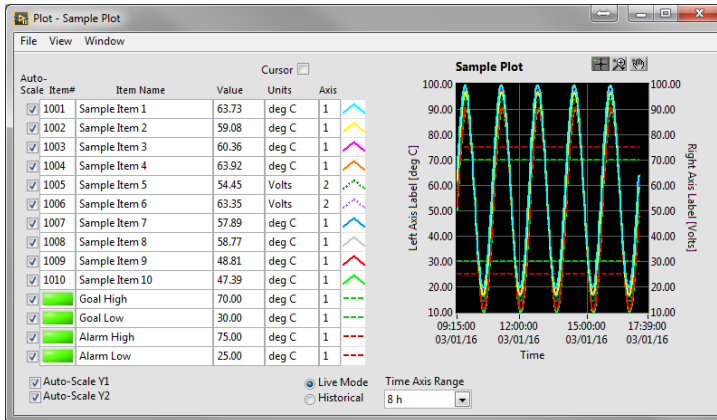


- Ideal for space related industries
- In use by major satellite manufacturers
- Verified through complete testing of multiple satellites



## TVAC 7000 - DAQ and control for Thermal Vacuum

The TVAC 7000 software targets the satellite industry for environmental testing of spacecraft and satellite sub-systems in a thermal vacuum chamber, which is typically the final test to be conducted, and the most complex and expensive test.

Detailed planning of the TVAC test is required, and is normally done 6-12 months ahead of the test in order to ensure success. The TVAC 7000 software was designed to provide a simplified test setup.

The TVAC 7000 accuracy, flexibility and reliability make it an ideal software for any thermal vacuum chamber that needs DAQ and control functionality.

For large facilities with several vacuum chambers, TVAC 7000 supports distributed systems, network connectivity, stand-alone operation or remote control options.

Additionally, TVAC 7000 capabilities include closed-loop PID control, analog outputs, a variety of power supplies and discrete on/off controls, which can be customized and delivered as a turn-key system.

The TVAC 7000 works with NI or Keysight modules and provides the ability to fully configure a station with any number of modules to acquire data from thousands of channels. WinSoft's signal conditioning is built into the terminal blocks mounted to the modules.

Our commitment to you and your customers' success does not stop with delivery of the TVAC 7000. Our dedicated customer support engineers will assist you or your customers with installation, training and maintenance of the systems.

### Key Benefits

- Works out of the box with NI hardware (\*) or with Keysight's 34980A Multi-function Switch/Measure Unit with the 34921A 40-Channel Armature Multiplexer and the terminal board 34921T. The software includes the ability to fully configure the station with any number of 34980A chassis.
- Reliability – has been used to test 15+ Satellites over 8 years
- Years of IP and knowledge in one fully debugged package (Thermal, Electrical, Structure, Pressure, Alarms, Communication, Database connectivity (Oracle and SQL), Real time graphs, Redundancy, 200+ PID loops)
- High channel count, modular and scalable software for DAQ, control, analysis, reporting, and display.
- A variety of power supplies can be used for the heaters.

(\*) Customization per number of channels may be required.



TVAC 7000 - Hardware samples

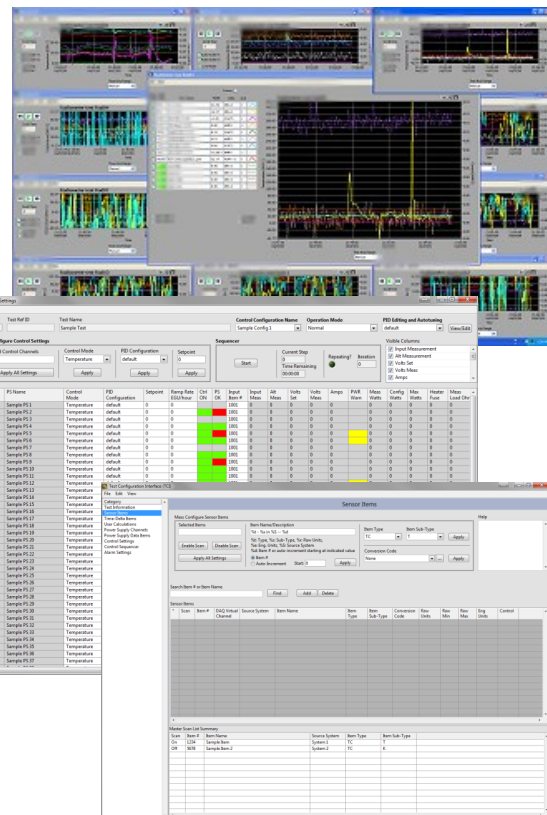
## Key Features

- Client Server architecture
- Real Time monitoring of thousands of sensors and 10,000-15,000 telemetry signals
- 200+ Closed-loop PID controls (editable and auto-tuned)
- Continuous recording of data every few seconds over a period of several months
- Real time and historical display of data and anomalies
- View of up to 50 different windows with various graphical and image displays in real time
- Dedicated test configuration interface
- Programmable multi-level alarms
- Configurable tabular and plot display
- Image display with overlaid real-time data
- Hierarchical-level password protected GUI for local and remote system configuration, operation, and maintenance with email and text message alerts
- Mass editing tools (i.e. editing large quantity of channels with one operation)
- Performs user-defined calculations on the acquired data in real-time
- Analog outputs and discrete on/off controls
- Support of central database for data collection
- Remote secure monitoring over the Internet (VPN)
- Works with NI or Keysight hardware

## About WinSoft

Founded in 1994, WinSoft offers engineering services (software and hardware development) and turn-key solutions in the test & measurement field.

Our Build-to-Print division manufactures systems, products, equipment and sub-assemblies according to customers' specifications and ANSI/IPC-A-610 std.



TVAC 7000 - Screens samples



ISO 9001:2015 Certification  
# 1679

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