

Control Assistant

Description

Control Assistant software provides powerful troubleshooting and maintenance tools for Woodward controls. Control Assistant provides the tools to perform advanced system diagnostics, adjustment management, and other functions.

Control Assistant is a suite of four powerful tools:

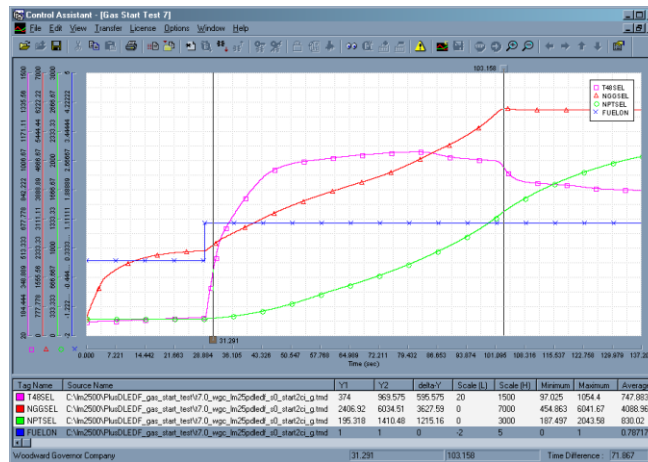
1. Datalog Graph View—

Provides a powerful graphical tool for viewing and analyzing dynamic control variable performance off-line. Millisecond time resolution, synchronized down to the software execution rates, gives exact clarity to dynamic control transients. Control Assistant's graphical features complement lower-resolution trends from a traditional HMI, letting you solve problems quickly and get back on-line sooner. Use in conjunction with NetSim™ (Woodward's simulation and modeling package) to analyze software timing during test and development to save time later.

- Graphing—Graphical viewing allows the plotting of variables versus time. Whether it is a control datalog, NetSim generated log, trend buffer file, or just a generic .CSV (Comma Delimited File), as well as other generic built-in data formats, any combination of variables may be viewed.
 - ✓ Create X-Y plots; for example, speed vs. pressure.
 - ✓ Apply calculations and filters to any variable or any combination of variables in the data set.
 - ✓ Over-plot two or more data files for comparison, including time offsets to align events.
 - ✓ Use crosshairs to analyze values and measure time deltas.
 - ✓ Basic statistical data provided on each variable.
 - ✓ Export data or data subsets to a generic .CSV format for other analysis, such as in a spreadsheet or injection into simulations for predicted analysis.
 - ✓ Script files may be created to automate viewing different configurations of data and data subsets.
 - ✓ Plot continuous datalogs or multiple files concurrently in time, stitching together the millisecond resolution data to a big picture over hours or more of operation.
- Data log Configuration—Add variables on the fly to the new MicroNet™ Plus datalog offline or directly by connection to the control and browsing the variable explorer
- Data Transfer—Backward compatibility support to include capturing a datalog transferred from the control through a serial or Ethernet connection.

2. Tunable Maintenance Utility—Includes downloading, sorting, comparing vs. baseline, saving, and uploading new tunables to the control.

- Quickly identify changes from default.
- Download the tunable information from one control system and upload to another.
- Download tunables from two control systems and compare the difference.
- Backup current control settings for archiving, tracking, and comparing changes.
- Powerful verification of new and different tunables during a software upgrade.
- Copy to spreadsheet for further sorting or saving in a generic format.



- Advanced troubleshooting tool for Woodward controls
- Graphic display in millisecond time resolution
- Detailed analysis of dynamic control or any generic data set
- CSV export
- Capture, Sort, Compare, Save, and Upload tunable values
- Continuous datalog graphing
- Custom datalog variables
- Live custom trending and event triggering
- WinPanel - Watch Window Explorer debug and tuning
- Program loading
- OPC connectivity and OPC alarm and events monitoring

3. **Custom Trending**—Connect and browse the control variable explorer list to create custom trends for quick analysis of a specific problem that requires better resolution than an HMI but not as detailed as the datalog.
 - Create trends of any control variable that does not exist on the fixed HMI list.
 - Supports trigger-based events to permanently save trend buffer data and events to files.
4. **Debugging**—Connect and browse the control variable explorer list to adjust, tune, and monitor variables as well as check status and software revisions.
 - Integrates Watch Window functionality into this one package.
 - Save custom lists for quick recall that include multiple titled sub tabs for organization of groups by functionality or feature such as actuator stroke/calibration, speeds, or temperature.

Specifications

LOADING APPLICATION TO CONTROL

Programs generated by Graphical Application Programming (GAP™) in hex format for Motorola 68040 and 68060 based NetCon™ and MicroNet CPUs can be downloaded to the control via serial or Ethernet connection. Woodward's Application Manager (AppManager) is used to download software to Pentium or Motorola 5200/P1020 CPU based controls. Woodward's SOS Servlink OPC Server may be used to download applications to controls which accept the ".SCP" program file format.

TUNABLE MAINTENANCE

Tunable lists can be received from, modified, and sent to the control. Backward compatibility and serial or Ethernet connections are supported.

GRAPHING AND PLOTTING

Datalog files from applications with the DATA_LOG and/or DATA_LOG_M blocks may be viewed graphically in Control Assistant. These files may be downloaded over a serial or Ethernet (UDP) protocol, or, for controls with file systems, through FTP and the Woodward AppManager tool. For platforms which support it, the DATA_LOG_M block may be used to continuously produce data which AppManager can be configured to automatically download.

OPC COMMUNICATIONS

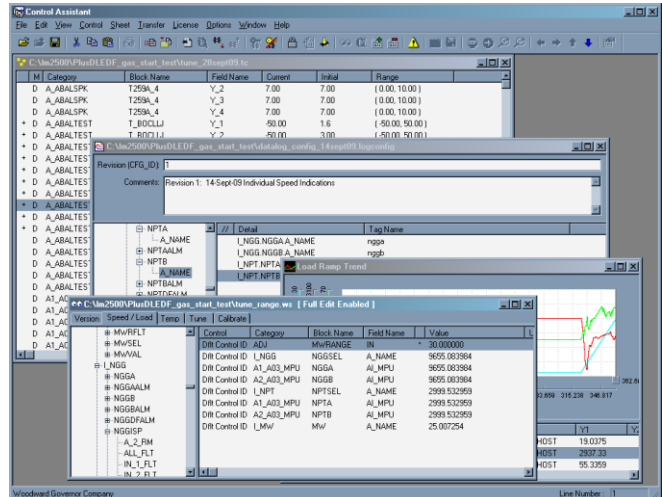
Control Assistant exchanges live data with Woodward OPC Servers (controls or the SOS Servlink OPC Server ["SOS"]). The OPC Data Access 2.0 protocol is followed. The OPC Alarm and Events ("AE") protocol (simple version) is also available if the control application is programmed to support it. An Active X plug-in is available for AE.

SYSTEM REQUIREMENTS

- The minimum PC system requirements are:
 - Windows® XP/Vista/7/8/10
 - .NET 4.5.1 Framework
 - Woodward's SOS Servlink OPC Server
- Use of a system that does not meet these requirements will in most cases degrade the performance.

INSTALLING AND LICENSING CONTROL ASSISTANT

The software can be downloaded from www.woodward.com/software. Follow the instructions on-line for installation and licensing authorization. To purchase a license for full functionality, contact your Woodward vendor. Full functionality includes multiple WinPanel tabs, saving WinPanel configurations to files for quick recall, and graphing or live capturing trends with multiple variables (when unlicensed, at most two variables are allowed).



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