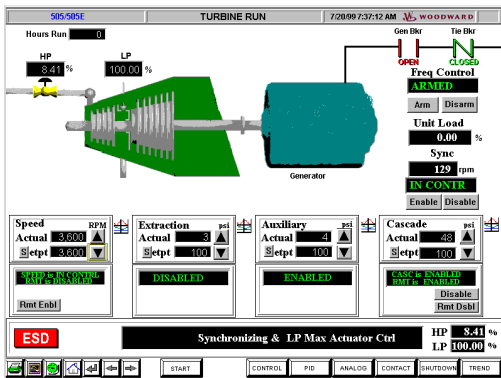


505View

Operator Interface Software for Woodward 505 and 505E Controls



APPLICATIONS

The 505View Operator Interface Software provides Human Machine Interface (HMI) capabilities for 505 and 505E steam turbine control systems. 505View software loads onto the user's PC which connects to the 505/505E control. 505View is designed for operator control and annunciation in either control room or local control applications. Integral remote access capabilities allow flexibility in a variety of applications. Alternatively, 505View may be loaded onto a laptop PC to be used by technicians and engineers only as needed.

DESCRIPTION

505View uses Intellution's powerful PC-based HMI engine to provide a graphical and intuitive interface for the 505 and 505E controls. The 505View software is unbundled from the computer hardware to provide the ultimate flexibility in application.

505View displays all parameters required for operation and service. An operator or engineer can graphically view operating inputs, vary control set points, issue Run Mode commands, and view trends and event logs of turbine and control parameters.

Either as a full-time operator station or a special-purpose tool, 505View exposes all of the power and flexibility of the 505 control.

Remote Access to 505View allows un-staffed sites or service-at-a-distance. These features are inherent with the Intellution HMI software provided with 505View.

505View software may run on any PC that meets the specified requirements, thus allowing a variety of packaging options. It can be installed on a permanent computer in a control room for true operator interface. Or it may be a rugged industrial touchscreen mounted on the turbine deck for local operation. Or it could be a laptop computer used by the instrumentation engineer for troubleshooting. The graphics are suitable for use with a touchscreen computer.

The 505View configuration is transparent to the user. It dynamically extracts the configuration parameters from the 505/505E control system and automatically exposes only the relevant functionality. No matter what the configuration of the 505/505E, no 505View configuration is required.

If the control is not configured to accept 505View interface commands, 505View functions as a system monitor only. Once the control is programmed to interface with the 505View operator interface, all Run Mode operations can be monitored and performed through 505View (start, stop, mode enable/disable, set point raise/lower). Using RS-422 or RS-485 communications, 505View can be located up to 1220 m (4000 ft) from the 505 control.

- 505 and 505E Human Machine Interface
- For operator interface or troubleshooting
- Alarm/trip log with time tagging
- Graphic system control screens
- Displays all governor and turbine parameters
- Discrete and analog I/O screens for improved troubleshooting
- Automatic screen selection based on control configuration
- Remote access capability
- Real-time and historical trending

FEATURES

505View is a standard, self-configuring, Intellution-based software package. It is pre-configured to communicate via Modbus[®] * protocol with either a 505 or 505E Woodward steam turbine control.

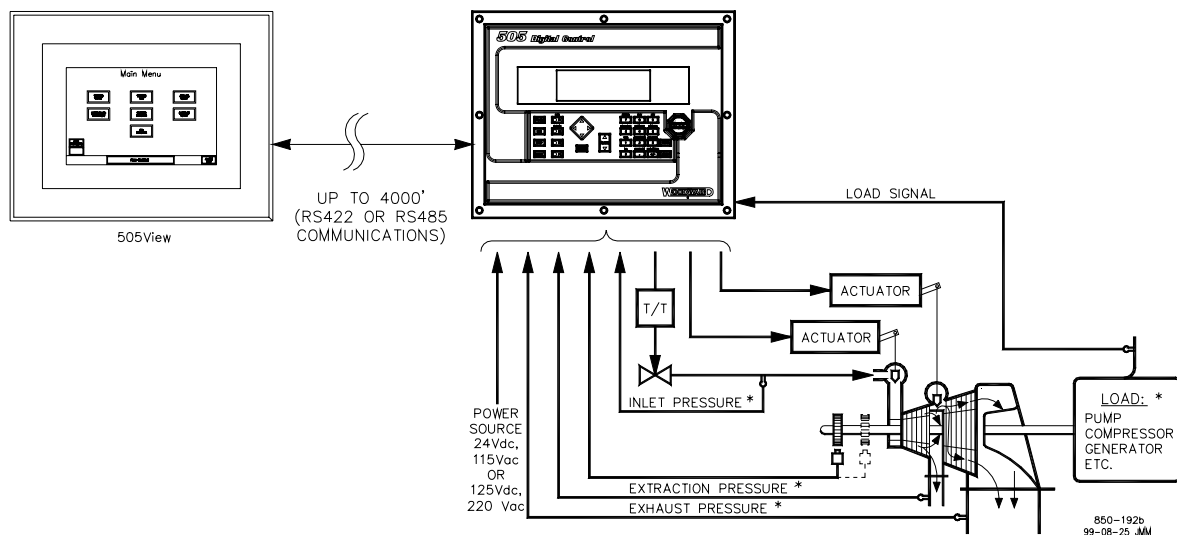
- Automatic screen generation based on control configuration
- Security with 3 user levels
- Remote access capability
- Real-time and historical trending
- Alarm/trip status indication
- Alarm/trip log with time tagging and first-out indication
- I/O and system troubleshooting
- Graphic system control screens
- Event status logging and history

Graphics screens include:

- All controlling parameters
- Starting sequence status
- Turbine related information
- Generator related information
- Speed, extraction, aux, cascade, and limiter information
- Analog input/output information
- Discrete input/output status
- System alarm & shutdown information

HARDWARE REQUIREMENTS

The computer should have a minimum of a Pentium 133 processor with Windows NT, 32 MB of RAM, 1 GB hard disk (for historical trend data storage), 2 MB Video RAM, CD-ROM, 1.44 MB floppy, 2 serial, 1 parallel, mouse, and keyboard. In addition, the monitor Display Properties should be set to the 800x600 resolution.



Typical Application of 505E with 505View

*—Modbus is a trademark of Modicon, Inc.

Sample 505View Operator Interface Screens

505/505E TURBINE CONTROL 7/20/99 7:32:33 AM WOODWARD

 Speed RPM Actual 3,596 ▲ Setpt 3,600 ▼ SPEED is IN CONTRL RMT is DISABLED Rmt Enbl	Preset Setpt 3,200 RPM Go To Preset Abort	SPEED is IN CONTRL RMT is DISABLED	Rmt Spd Setpt 3,605 RPM Rmt Enbl
 Aux Lmtr psi Actual 4 ▲ Setpt 100 ▼	Preset Setpt 0 psi Go To Preset Abort	ENABLED	
 Cascade psi Actual 48 ▲ Setpt 100 ▼	Preset Setpt 0 psi Go To Preset Abort	CASC is DISABLED RMT is DISABLED Enable	Rmt Case Setpt 75 psi Rmt Enbl
 Extraction psi Actual 3 ▲ Setpt 100 ▼	Preset Setpt 0 psi Go To Preset Abort	DISABLED	

ESD Speed / Off-Line & LP Max Actuator Ctrl HP 8.74 % LP 100.00 %

START RUN PID ANALOG CONTACT SHUTDOWN TREND

505/505E TURBINE RUN 7/20/99 7:37:12 AM WOODWARD

Hours Run 0

HP 8.41 % LP 100.00 %

Generator

Gen Bkr OPEN Tie Bkr CLOSED

Freq Control ARMED
 Arm Disarm

Unit Load 0.00 %

Sync 129 rpm IN CONTRL
 Enable Disable

Speed RPM Actual 3,600 ▲ Setpt 3,600 ▼ SPEED is IN CONTRL RMT is DISABLED Rmt Enbl	Extraction psi Actual 3 ▲ Setpt 100 ▼ DISABLED	Auxiliary psi Actual 4 ▲ Setpt 100 ▼ ENABLED	Cascade psi Actual 48 ▲ Setpt 100 ▼ CASC is ENABLED RMT is ENABLED Disable Rmt Dsbl
--	--	--	---

ESD Synchronizing & LP Max Actuator Ctrl HP 8.41 % LP 100.00 %

START CONTROL PID ANALOG CONTACT SHUTDOWN TREND

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505/505E
TURBINE START
7/16/99 3:43:01 PM WOODWARD A1

(Start Idle/Rated)

RAMPING TO RATED

Turbine In Critical Speed Band
Using Critical Rate

Speed 1,568 RPM
Speed Setpoint 1,615

▲

▼

Set

Select Idle

Select Rated

Speed Sensor #1 1,569 RPM
Speed Sensor #2 1,569 RPM

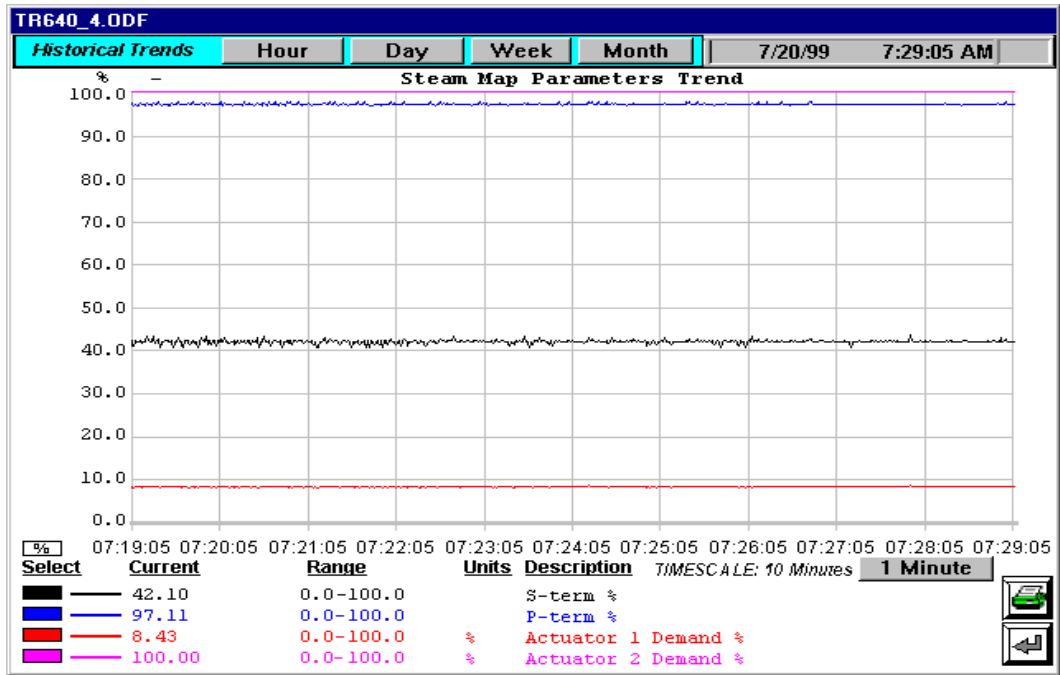
HP DEMAND

IN CONTROL

ESD
Idle/Rated Start & LP Vlv Limiter Ctrl

HP 9.91 %
 LP 100.00 %

RUN CONTROL PID ANALOG CONTACT SHUTDOWN TREND



Software Manual 26042

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04/7/F

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