VP LINK

wood.

Creating a virtual practice plant through dynamic simulation

Creating Dynamic Simulation

Wood's VP Link software simulates a process control system, catering for simple to sophisticated modelling needs in a continuous framework.

Wood's VP Link software

Our software acts as a virtual practice plant to support effective operations by testing process responses on control networks and delivering interactive operator training.

When connected to an offl ine distributed control system (DCS), safety instrumented system (SIS), or programmable logic controller (PLC), the system logic will react as though it in a live process. VP Link writes values for process variables and offers a graphical user interface (GUI) for the engineer or instructor to present scenarios such as equipment fault, process upset, or transmitter failure.

Incorporated with our operator training system (OTS), VP Link is a test bed system to build skills. Our software also supports the periodic validation of process logic and change management. In addition, VP Link connects to our Virtuoso® systems for integrated dynamic simulation models, such as production wells, fl owlines, pipelines, subsea and topsides processing facilities and controls.

For more information visit:
woodplc.com/vplink

Benefits of using VP Link

Ability to test processes without modifying the control or safety system program

- Platform-independent to provide compatibility with most industry systems
- Modelling environment is fl exible, easy to learn and easy to maintain
- Adaptable, reconfi gurable and cost effective solution
- Fast track scheduling with the ability to develop models during system confi guration
- Use early in the logic development phase as an offline debugging environment
- Simplicity of software makes interactions clear and fine tuning of dynamic parameters straight forward

Key features

- Can be used at any time during the entire control confi guration life cycle
- Non-invasive connection to control systems
- Supports control networks, training, virtual process and highfi delity models
- Capable of reading the outputs from the control system as well as calculating the virtual process state using its hybrid process modelling
- Ability to retrieve real-time performance logs
- Extensive modelling library to enable simulation for complex process units
- Allows for several user interfaces

Supported systems

- Rockwell: ControlLogix, AADvance, A-B PLC5/ SLC500, Trusted, PlantPAx
- ABB: Mod300, Advant, Industrial IT
- Emerson: Delta V, ProVOX
- GE Fanuc: Series 90, RX3I, RX7I
- Honeywell: Experion PKS, TDC, TPS, FSC, Safety Manager, Plantscape
- Novatech: D/3
- Schneider Electric: Triconex - Tricon /Trident; Foxboro - I/A, Archestra, InFusion; Modicon - Quantum, Unity, M340
- Siemens: Ti 505 Serial or Ethernet, APACS, PCS7, S7
- Yokogawa: Centum VP, CS3000, ProSafe/RS
- Open Process Automation (OPA) Controllers
- AI (Artifi cial Intelligence) brains, including Microsoft BonsAI
- or hardware signals to any processor and I/O
- or emulation within VP Link using

Industry applications

- Aerospace
- Chemical
- Food & Beverage
- Life Science & Pharma
- Mining
- Nuclear
- Oil & Gas
- Petrochemical/Refi ning
- Power generation

Application: Control and safety system logic validation

VP Link validates control systems logic, enabling the following:

- Graphics verifi cation
- Logic checkout at input/output (I/O), block, module or system level
- Interlock schedule approval
- Integrated testing: Mapping to DCS and interaction between DCS/PLC logic for gateway point tests

VP Link facilitates this through several features:

- Automates repetitive testing tasks such as resets
- Facilitates factory acceptance testing with customised graphics
- Offers a collaborative testing framework through distributed architecture

Application: Operator training systems

Wood's OTS mimics process systems, including those with signifi cant potential risks which require highly trained operators to ensure plant safety and maximise productivity.

Our OTS packages can incorporate detailed integrated models inclusive of production wells, gathering fl owlines, export pipelines and processing facilities.

In addition, the OTS can also be used as a tool to evaluate operating procedures, tune control loops, validate DCS confi guration/logic, and carry out other engineering tasks offl ine without interfering with actual operations.

Wood. Powered by possible

The need for change has never been greater. In our industries, in the way we treat our planet, and in how we live.

To challenge the status quo we must be brave – it's having the courage to forge new answers. We're 40,000 inquisitive minds, on a quest to unlock solutions to the world's most critical challenges, across all of energy and the built environment.

United by our mission to create a sustainable future as the world evolves to a cleaner planet. Our bold spirit drives us to lead the charge, our actions transform challenges into solutions, and our curiosity keeps us pushing, innovating, making the impossible... possible.

Because we understand the time for talk is over. Because the world needs new answers to old challenges. Because at Wood, we are future ready, now.

For further information please go to:

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