Test and validate control programs and software applications using PICS Simulation® software to avoid the high cost of production downtime.

PICS Simulation® software simulates real-world systems and machines controlled by DCS, PLC and PC control systems. The entire system (communications, sequencing/interlocking, HMI/SCADA, and alarms) can be tested, all emergency faults can be verified and operators trained prior to the system going operational.

With PICS Simulation software, control system errors can be swiftly identified in the office, allowing new processes to be implemented quickly and accurately thereby avoiding the high cost of production downtime. The software allows the creation of a dynamic model on a PC that duplicates the behavior of the I/O devices, providing the control system with simulated device feedback. PICS Simulation software also provides a realistic and versatile testing and training environment for operators.

For systems integrators, the competitive environment is such that fewer and fewer jobs permit an open-ended time and material clause for the start-up phase of a project. Using I/O simulation for control system testing helps to keep projects within quoted prices and avoids costly penalty clauses.

**FEATURES AND BENEFITS**

- Modern, customizable, visual development/debugging environment
- Ladder diagram editor for developing simulation logic (based on the IEC-61131-3 standard)
- Easy-to-use template editor for creating simulated devices and logic function blocks
- Device worksheets for graphically displaying the status of simulated devices and interacting with controls
- Importing I/O variables from popular PLC programming packages or from any delimited file format using the Import Wizard
- Editable scenarios for restoring or setting a simulation to a specific state greatly simplifies problem re-creation

**Save time and money**

- Faster startups - typically save up to 30% of the overall project programming, installation and debugging time
- Eliminate software bugs earlier in the project
- Locate and correct software problems 10 to 20 times faster in a simulated environment
- Reduce downtime by installing tested and proven software

**Reduce project risk**

- Minimize project scheduling and cost uncertainties associated with debugging control logic problems
- Identify and correct problems before they cause delays and cost over runs

**Improve operator training**

- Operators can gain valuable experience running production on the “live” control system in a simulated environment
- Training sessions can include emergency scenarios that would be too dangerous using the actual equipment

**MARKETS AND APPLICATIONS**

PICS Simulation software has proven its value on thousands of projects in a wide variety of industries including:

- Automotive
- Food and beverage
- General manufacturing
- Material handling
- Nuclear energy
- Petrochemical
- Pharmaceutical
- Rubber and plastics
- Utilities and waste water treatment
**ADDITIONAL PRODUCT FEATURES**

**OPC Client**
PICS software can simulate a growing range of protocols by using OPC servers as PICS drivers. PICS Simulation acts as an OPC client, supporting any OPC compliant server when used with the PICS OPC client driver. Limitations on accessible data point types and multi-station capabilities may render certain servers unusable. OPC clients successfully used with PICS Simulation include:
- SST™ DH+™ OPC server
- SST ControlNet OPC server
- SST PROFIBUS DP multi-slave OPC server
- applicom® Modicon® OPC server
- Rockwell Automation RSLinx OPC servers (various)
- Matrikon™ OPC servers (AB serial, AB DH+, AB Ethernet, Modbus™, Modbus Plus™, Modbus Ethernet)
- Merz OPC server (AB serial)
- IO server OPC server (for AB and Modicon PLCs)
- Kepware Technologies OPC server (AB, Modicon, and GE Ethernet)
- Many others are available. Please note limitations on accessible data point types and multi-station capabilities may render certain servers unusable.

**DDE Client**
PICS software can simulate an extremely wide range of protocols by using DDE servers as PICS drivers. PICS Simulation acts as a DDE client supporting many DDE or fast DDE compliant servers when used with the PICS DDE client driver. The DDE client driver is included with the PICS Simulation software. Limitations on accessible data point types and multi-station capabilities may render certain servers unusable.

**Wonderware® Device Connectivity Servers**
Wonderware I/O servers provide a DDE connection to the PICS DDE client. Many protocols are supported including:
- Allen-Bradley DH / DH+ / DHII / DH485 / Serial / Ethernet Direct
- Bristol Babcock OpenBSI / Ethernet
- GE Ethernet
- Mitsubishi Serial
- Modicon Modbus Serial / Ethernet
- Omron FINS / Controller Link / Ethernet / Serial / Hostlink / SYMAC NET
- Reliance R-NET / Serial / AutoMax PC Link
- Siemens 3964R / S7 PROFIBUS / H1 Industrial / PROFIBUS FMS / SIMATIC TI TIWAY / SIMATIC TI Serial / SINEC H1 CP / SINEC PROFIBUS / L2 FDL
- Square D SY/MAX Ethernet / SY/MAX SY/LINK / RS422

**ORDERING INFORMATION**

**Base Software Package:**

<table>
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<tr>
<th>Order No.</th>
<th>Catalogue Number</th>
<th>Product Description</th>
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<tbody>
<tr>
<td>112029-0027</td>
<td>SST-PICS-PRO-U*</td>
<td>PICS Simulation on CD and USB hardware key</td>
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*Special module may be required for PLC. I/O driver and interface card or DDE server and I/O service license fee may be required for the computer running PICS

**I/O Network Drivers:**

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<th>Catalogue Number</th>
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<td>PICS-PRO-AB</td>
<td>Allen-Bradley® 1771 Remote I/O</td>
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<td>PICS-PRO-OPC</td>
<td>OPC Server - dependent on server</td>
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<td>112029-0027</td>
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<td>DDE Server - dependent on server</td>
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**Rockwell Automation RSLinx® DDE/OPC Servers:**

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<td>Allen-Bradley</td>
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