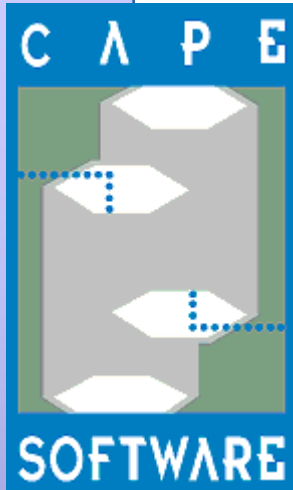


The Virtual Process
VP Link

Cape Software Inc.
www.CAPESoftware.com

VP Link



Virtual Process Overview

- Windows based interface: intuitive
- No Changes to the Tricon program: non-invasive
- I/O board Hardware not required: Cost Effective
- Multiple interface to Triconex, including
 - Modbus, Ethernet, Real I/O



Eng/Operator Station
Running Tristation



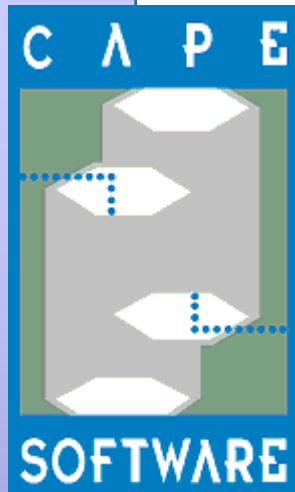
Read value of outputs



Calculate
Process
Variables

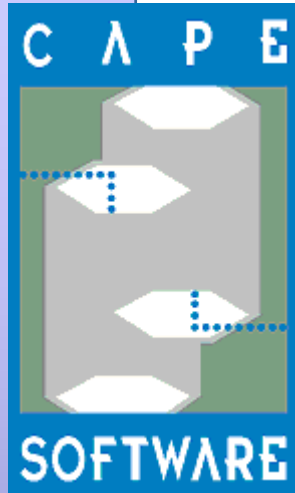
VPLink

Write simulated inputs



VP Link Ease of Use with Triconex

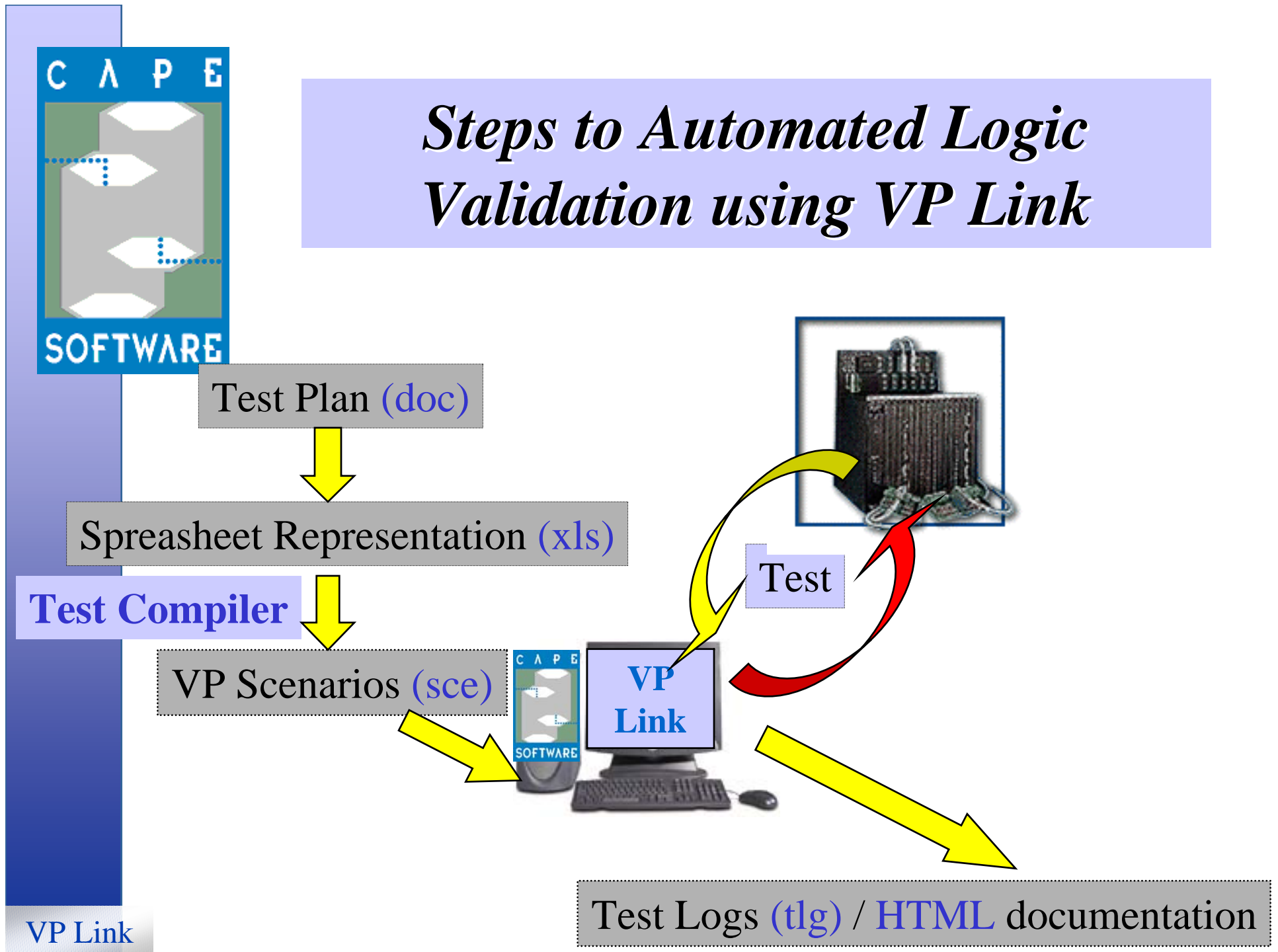
- Extraction utility creates the VP Link Tag Database, in a spreadsheet format
- **Fast:** Import and connect to all the points in a matter of minutes
- **Functional :** VP Link utilities automate tie-backs, or assist in creating more complex Dynamics
- **Convenient:** Drag and drop Graphic interface makes VP Link a practical, customizable testing environment
- **Adaptive:** Can be used to simply metaphor a Hardware Panel (Testing) or a rigorous process model (Operator Training)
- **Scalable:** Can interface with various control platforms (IA series/Archestra) for thorough integrated Testing

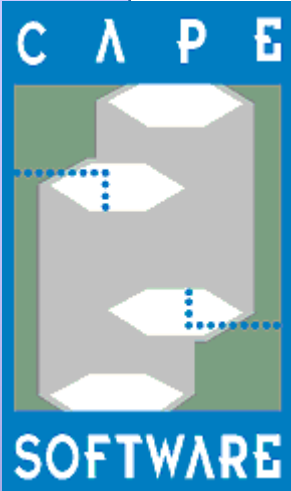


VP Link Test Compiler

- Generates Test Scripts, using an Excel front-end
- Scripts Based on Customer Test Plan and Functional Specifications
- A Script
 - Forces inputs to a specified State
 - Compares the outputs to an expected state table (Cause and Effect Matrix)
 - Logs errors to HTML format
- Runs and documents test plan **unattended**

Steps to Automated Logic Validation using VP Link





Automatic Testing of Distributed Program

Foxboro DCS

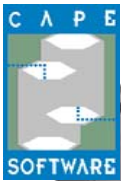


SIS MMI

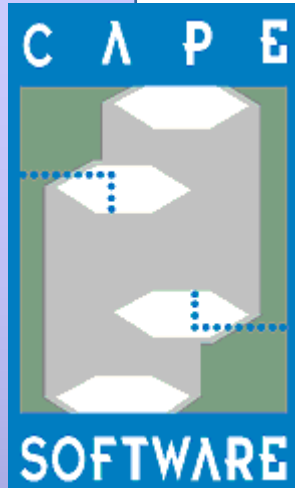
Tristation



VP Link



Triconex Chassis
or Emulator



Benefits of Logic Validation using VP Link



- Improved **maintainability**, Logic can be re-tested periodically during the program life cycle
- Test Scripts are queued, then run **unattended**
- **Reduction** of overall installed **cost** / Schedule
- **VP Link adaptivity** to different testing phases
- Improved Test quality (“**6 σ** ” objectives)
- Better **Documentation**
- **Compliance** to Software Validation standards
 - (IEC 61508,61511,TuV)
- Improved **Management Of Change**
- Increased **Safety**