



EnVision Overview

What is EnVision?

EnVision is a FREE SCADA (Supervisory Control and Data Acquisition) package allowing users to assemble a data acquisition system of up to 128 devices without the need for programming. The Devices can be a mix of Future Design Controls Orion-Mi and nCompass LC & CM multi-loop control systems, loop controls (100, 300 and C-Series single-loop PID controllers, L91/L41 limit controllers & P-Series profile controls) and FDC-IO modules. Data from each device can be monitored from the Windows® based *EnVision* package. Connection to the individual devices is via RS485 serial connection or Ethernet-to-serial connection.

EnVision provides a rich set of tools for control interaction and data analysis. Control data can be viewed in device detail, faceplate, digital and trend formats (up to 8 Trend Views each with up to 12 values). You can change set points, alarm set points, initiate loop control auto-tuning and even create, save, download and start profiles/schedules for any Orion control system or P-Series loop control in the system.

EnVision Data Logging

The *EnVision* software package can monitor up to 128 individual devices. Each of the 128 devices, whether a mix of Orion-M control systems, loop controls or 8-channel analog modules, can have their data saved at user-defined rates. With a separate data log file for each device and one system log file (select from values from any combination of devices & data points) *EnVision* can concurrently run up to 129 different data files!

Using Orion-Mi or nCompass CM as a device allows data access to other brands of loop controls: Danaher, Eurotherm, Honeywell, Watlow, Yokogawa with more to be added.

Operator Events (messages) may be added to each data file at any time and inserted into the data file graph.

Digital Signature capability provides data integrity.

Data file analysis tools (digital and trend), advanced Search tools and more allows looking at a data file a simple task.

How many variables can be Monitored & Logged?

A mix of FDC devices may be on the link but if all 128 were Orion-M iSeries control systems with each Orion logging its maximum of 15 loop control PVs, SP, PID % out and 15 Monitor inputs (60 values/Orion) *EnVision* would provide access to 7,680 variables that could be data logged and monitored in real time. Within *EnVision* each Orion would have its own data log file and with one System data file configurable for any mix of devices on the link, provides up to 129 concurrently running data files!

EnVision Profile (Ramp Soak) Management

EnVision provides easy methods to create, edit, archive, download and start profiles for any Orion-Mi, nCompass LC & CM control system or P Series profile loop control. All profiles are saved directly to the hard drive of the PC which makes them available to download to the appropriate device on the network.. Notes, auto tagged with time & date, may also be added relative to specific profiles and attached to the profile for easy future access.

EnVision Alarm Capabilities

EnVision not only monitors and creates alarm files for loop controls & Orion-M iSeries alarms, but also supports up to 200 configurable soft alarm points that can be tied to any point within any device in the system. Each of *EnVision's* alarms can be assigned a specific alarm message that will be shown when activated. Combined with a 3rd party USB powered 8-relay output alarm relay outputs may be easily configured at the PC running *EnVision*.

EnVision General & Service Notes per Device

EnVision provides the user with the ability to enter both general and service notes, for each device in the system. The note files are saved individually per device, so that the use and maintenance history of each can be tracked. When a new note is created, it is automatically tagged by date and time of creation.

EnVision PC Software

LAN Features: email/text on alarm and Web Page

EnVision supports up to 30 email/SMS addresses and can be configured to send messages when an alarm occurs.

EnVision's web server allows users to view device operations remotely over an internet connection. The web server provides "read only" access which means users can only view the operation of each individual controller connected to the system; set point changes, starting/stopping of profiles, etc., is not permitted.

Security & Audit Trail

EnVision's security features are not just applicable to the pharmaceutical or other regulated industries. Any industry that requires secure data files, audit trails and authenticated logins to initiate process changes can take advantage of these features. The security features can also be turned off for companies that do not require security in their systems.

- EnVision offers 4 user group with over 40 user rights to be enabled or disabled.

Audit Trails: When enabled EnVision's security provides a user Audit Trail providing detail of every operator action. With advanced search functions it is a snap to create & review custom Audit Reports.

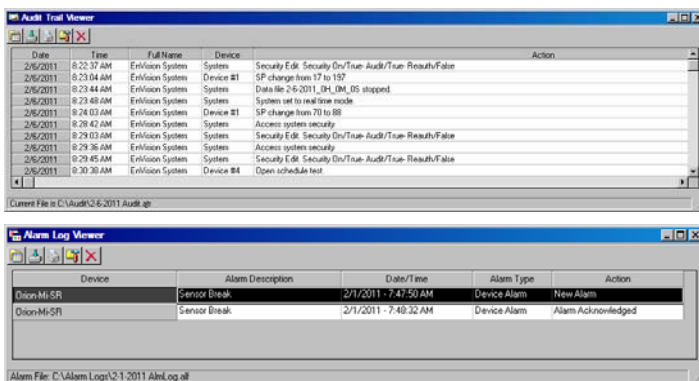
Regulatory Requirements: CFR21 Part 11 / AMS 2750E

EnVision meets the requirements for both 21CFR Part 11 and NADCAP AMS2750E for electronic data acquisition files as well as requirements for security access to software functions, encrypted data, electronic signatures and audit trail listings.

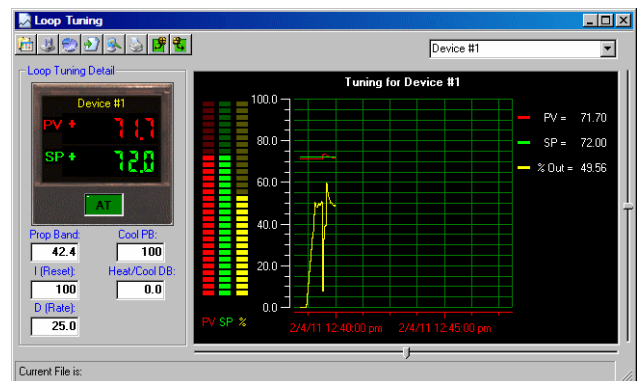
EnVision Website Tour

EnVision web site offers a detailed tour of its' features at: http://www.futuredesigncontrols.com/envision_tour.htm

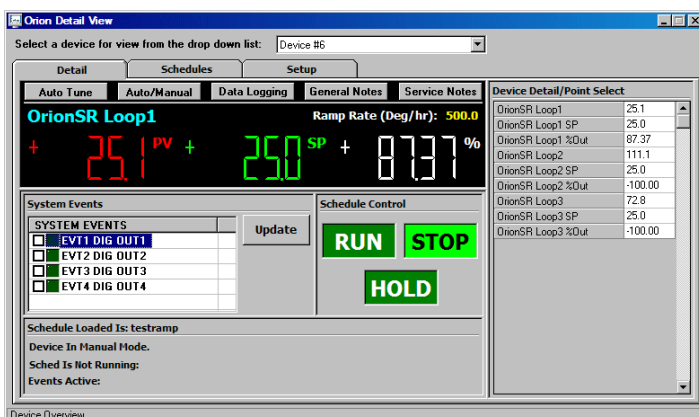
Audit Trail and Alarm Views



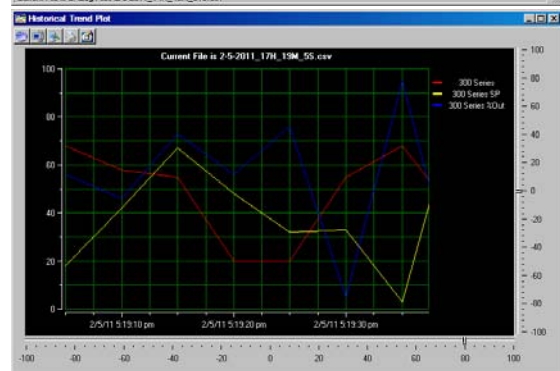
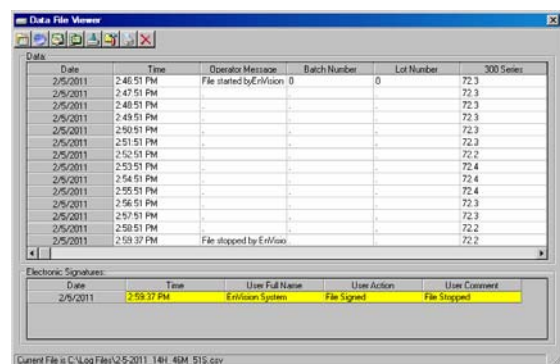
Loop Tuning setup provides Manual & Auto-Tune



View of Orion-Mi & nCompass CM Control Systems



Data Log Data Viewer and Selected Data Graphed



Faceplates provide views of loop controls PV & SP and for other multi input Devices (Orion & 8-channel input cards) select the channel from the drop down box to be displayed. View also shows Data log status and access to Device General & Service Notes.

