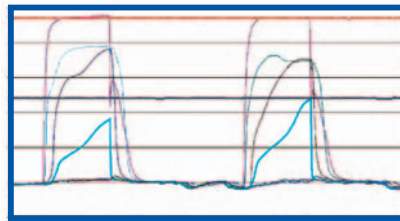




Allen-Bradley PLC
or Versa View 1500



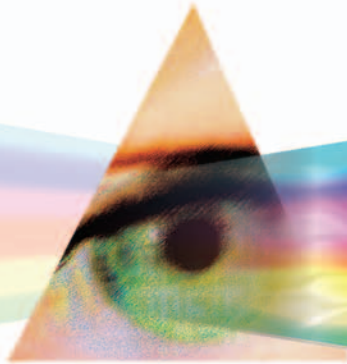
Process Verification



Control Blenders, Dryers,
Mold Temperature Controllers &
Other SPI Compatible Devices



Desktop Command
and Control Station



F.A.C.S.

Factory Acquisition Control System

Control Material Handling Systems and Auxiliaries

Process Verification

Monitor, Graph Process Variables and Alarms on
Dryers, Mold Temperature Controllers, Blenders
and other SPI Compatible Devices from any Manufacturer

Generate Reports for Quality Control, Material Usage and Maintenance

Easy to Use Windows-Based Modular Design

Receive Factory Direct Support from all Manufacturers

Factory Direct Support
from any Manufacturer
of Auxiliaries



A Revolutionary Vision System for Material Handling & Auxiliary Equipment

Control

Your Material Handling System and Auxiliary Equipment from your Desk or the Plant Floor

Control and Monitor:

- Dryers
- Mold Temperature Controllers
- Blenders
- Chillers
- Vacuum Pumps
- Vacuum Chambers
- Dual Ratio/Positive Shut-Off Valves
- Material Line Proofing
- Material Level Control Hopper, Surge Bin & Silo
- Rail Car Unloaders
- Rail Car/ Silo Manifold Connection Proofing
- Silo - Reorder Point Alert
- Weigh Cells
- Material Line Purge Valves
- Pulse Filter Cleaning
- Rotary Air Locks



CONTROL...



SMART I/O
4 LOADER CONTROL
MODULE



SMART I/O
PURGE CONTROL
MODULE



SMART I/O
PUMP MODULE

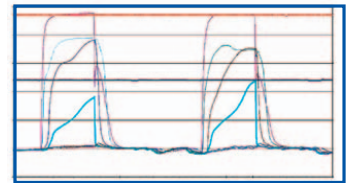
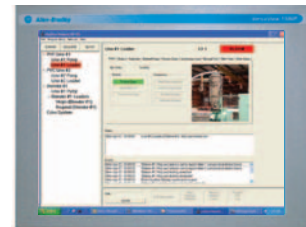


Process Verification

Monitor Setpoints and Equipment Performance
Material Flow and Equipment Selection



- Immediate notification of exceptions to process parameters
- Confirm Setpoints and Variables
- Sensors to ensure the right material goes to the right equipment
- Generate system reports on process variables and material usage
- Graph and Monitor process variables and alarms on all Auxiliaries with SPI Protocol Standards
- Data reports are stored on built-in database for future use



One-Step Process Flow Verification

Process Chain Analysis



Eliminate the risk of supplying faulty parts to your customer due to improper setup of material, auxiliary equipment, or mold temperature controller.

Process Flow Verification provides:

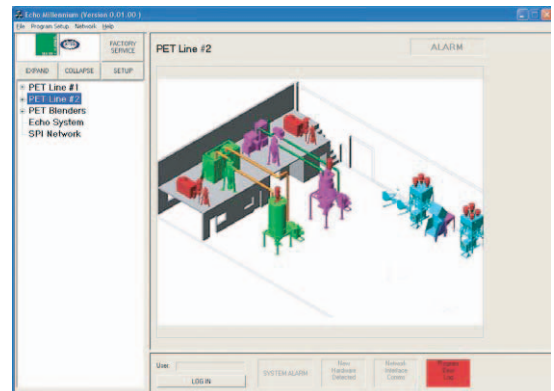
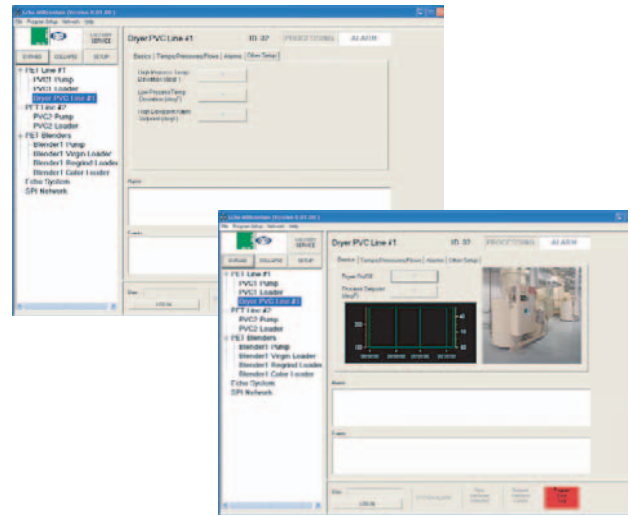
- Material Line Proofing
- Set Points
- Verification of the Correct Mold to the Correct Job

Process Chain is a linking of a series of key process variables such as:

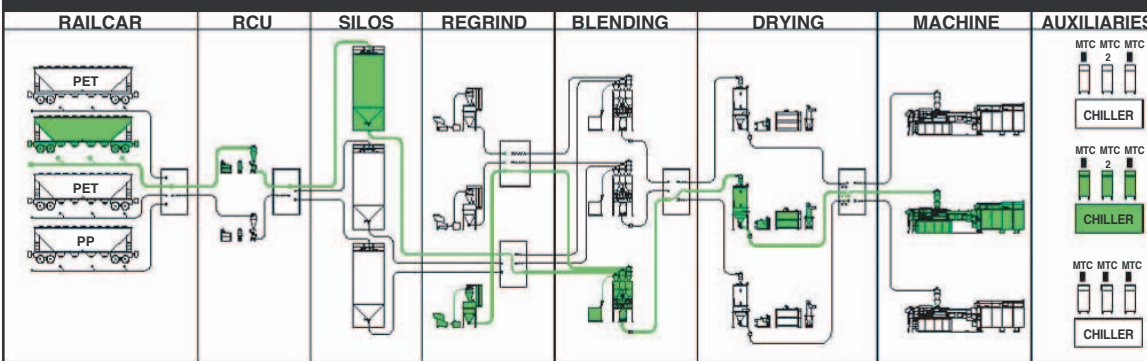
- Material Line Connections
- Process Set Points for Dryers
- Blender Recipes
- Mold Temperature Control Set Points
- Chilled Water Temperature...

Into a single process chain to run a specific job.

Process Chain Analysis/ Verification allows you to set up and record the proper material handling interconnections and parameters to ensure that the right materials reach the right machines to make the right products. NO PROGRAMMING is required. You can easily set up and create process chains with a single command.



FLOW DIAGRAM – PROCESS CHAIN VERIFICATION



Process Chain 1

- PET Eastman
- Railcar 2
- RCU-B
- PET - Silo
- BLENDER
 - Color - 5%
 - Regrind - 10%
 - Virgin Silo - 85%
- Dryer 6 - 150° F
- 300 Robo Shot
- Mold Parker Wheel / Job Parker 67889
- 10 Ton Chiller - 60° F
- Mold Temperature
 - 1 - 150° F
 - 2 - 165° F
 - 3 - 196° F

MILLENNIUM HMI

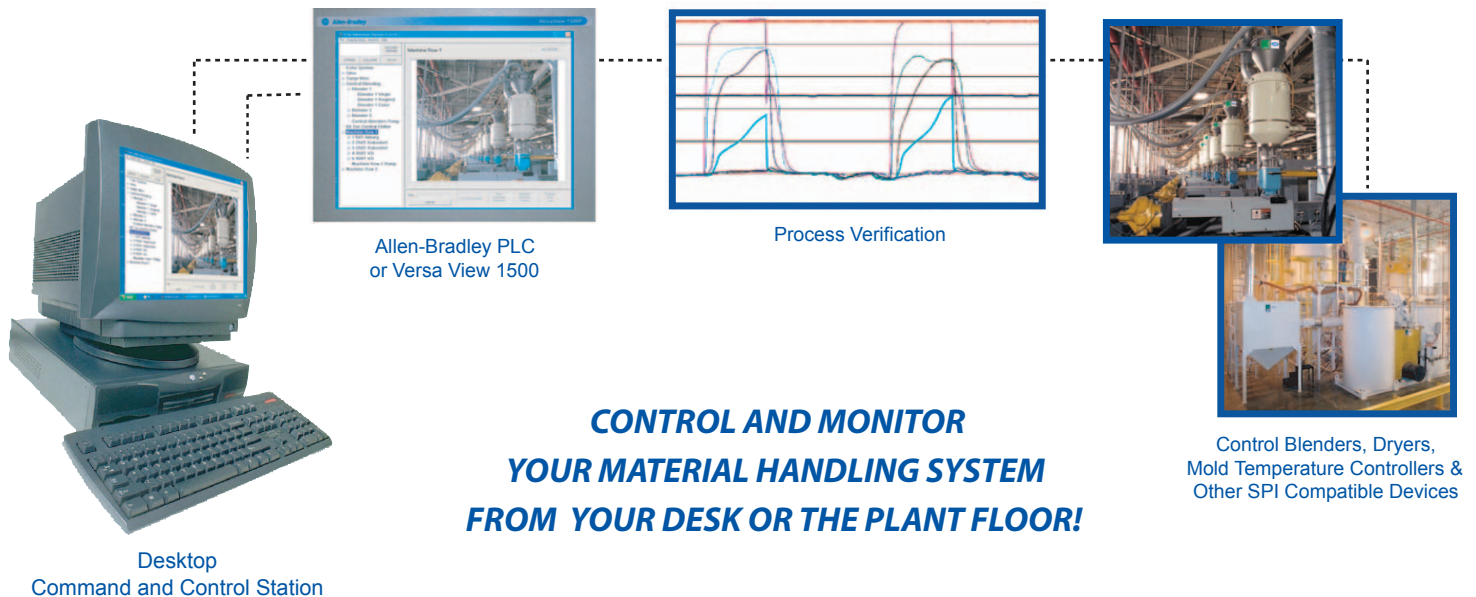
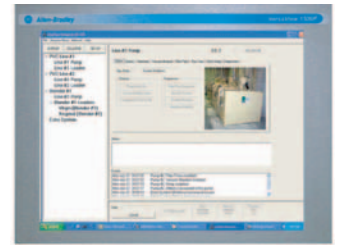
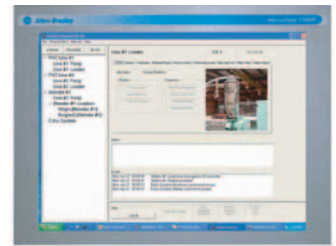
Vision into the Future of Material Handling Control Technology

Millennium HMI

Control & Monitoring with simple to navigate screens



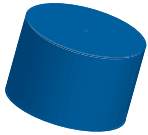
- Easy to use PC - Windows based program
- Import pictures and/or drawings to illustrate the equipment being controlled
- Allen-Bradley or Sieman PLCs' with touchscreen displays are compatible with Millennium HMI and allow complete control and monitoring of your material handling system direct from the plant floor.
- Incorporates simple to navigate screens with process chain analysis and verification
- Monitor and graph process variables and alarms on most SPI compatible device
- Full Graphing Capabilities
- Built in SQL Database that stores all your process information and provides standard reports
- May be connected to a wired or wireless network
- Factory Direct Email to any manufacturer with reports



SQL Database

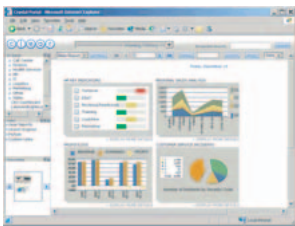
Standard Query Language

SQL Database



The SQL (Standard Query Language) data base utilizes My SQL open source software. Complete database mapping is provided on request for designing direct queries to the server. The server can be located on the HMI PC or in your enterprise system. All factory data stored in the database is available for immediate or future use.

Custom reports with Crystal Reports software



Customize your own reports to get the information you need when you need it. You can create reports that retrieve and combine information from the plant floor with your enterprise system. For example, you can create a report comparing your material usage and inventory with material purchases. Crystal Reports is a well known third party software tool that can access the F.A.C.S. SQL database and the SQL database in your enterprise system to simplify custom report design without the need of an in-house specialist.

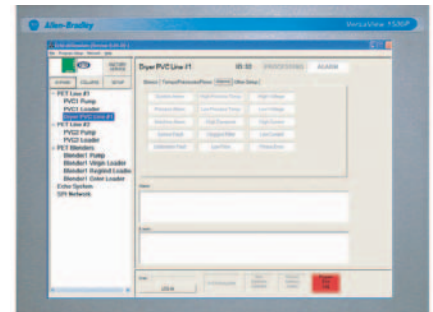
Factory Direct Link

Factory Acquisition & Control System redefines factory direct service. Factory Direct Link with Universal Dynamics provides direct on site access for system maintenance, machine evaluation and trouble shooting via high speed modem. The service mail system sends e-mail directly to any manufacturer providing comments regarding problem, machine performance history, control events and alarms.

Service E-mail System

Programs Available:

- Automatic Monitoring and Response
- Maintenance and Service Contracts
- 24/7 Technical Analysis and Support

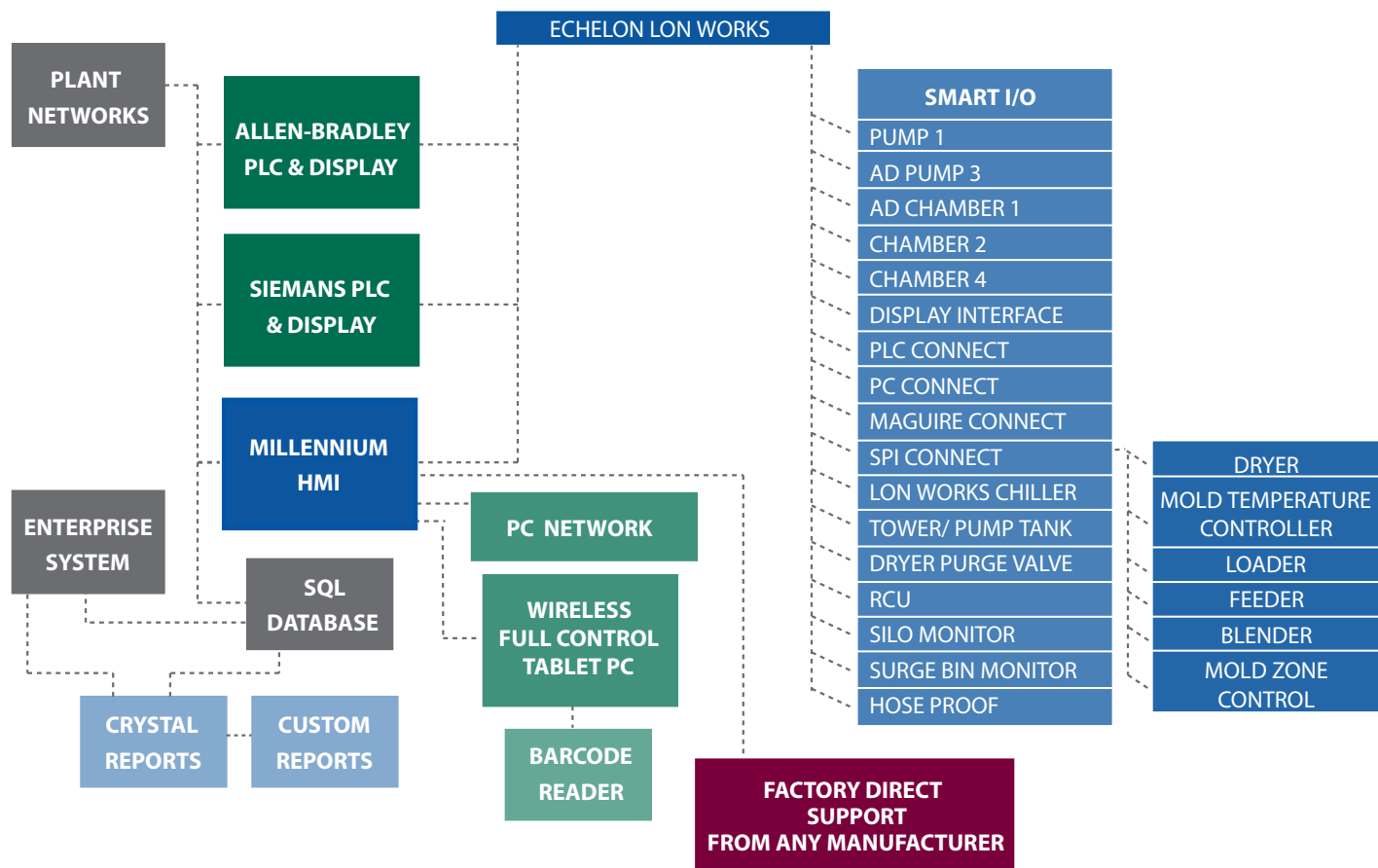


Smart I/O

Bullet Proof Distributed Control

F.A.C.S.

Factory Aquisition Control System
Una-Dyn Distributed Control Process Management System



Smart I/O

Bullet Proof Distributed Control

Smart I/O uses “distributed control” which is used on the Space Shuttle and at hazardous chemical plants because it is much more reliable than distributed I/O. It is so reliable that the optional Allen Bradley PLC can be disconnected and the system will still run with continued control via the Millennium HMI or Local Displays. Each Smart I/O module has its own CPU and controls the device it is connected to. Smart I/O communicates with other modules over the LON WORKS networks to synchronize operation and transmit data. The LON WORKS cable can be run in a loop and provide continuous operation even if the cable is cut. Smart I/O is so reliable that you can have hundreds of modules controlling thousands of devices and sensors while limiting down time to only devices controlled by the failed Smart I/O module. When you combine Smart I/O with the Millennium HMI it is installed as a plug and play device with the help of the laser eye identifier.

Smart I/O

Distributive Control Modules

- Control & Monitoring where you need it
- Never run out of control capacity again
- A “must have” for ISO Quality Systems
- No local power required
- Connect SPI Devices on the same Network
- Reconfigure your controls as your operation changes
- Great for portable Dryers and Blenders
- Easy plug and play setup



Smart I/O Distribution Control Modules redefine flexibility in control. You can put Smart I/O where you need it, when you need it, and change it whenever your needs change. It is not just a loading system, it is a plant operating system that will change the way you think about your process. If you tie it to other SPI protocol compatible devices, you can expand your command and control to most of your process variables. Smart I/O is a great productivity tool that will grow with many more modules in the future adding even more connectivity.

Quick setup! Just plug in and the PC will prompt you through the set up.

All Smart I/O Modules use state of the art surface mount technology. Each module comes in a lightweight box with tabs for easy mounting.

Note that many of the features described above require additional software.

UNIVERSAL DYNAMICS, INC.



Una-Dyn

Decades of innovation, expertise and product excellence has positioned Una-Dyn as the leader in material handling systems for the plastics industry.

Quick changeover, low maintenance, efficient operation and dependability are built into every product and system. As a Una-Dyn customer you will appreciate our unique modular approach to product design.

Think Una-Dyn next time you want to expand, upgrade or replace equipment. You'll find a complete family of products and systems. There is a solution for every budget and operation.

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www.unadyn.com

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UNIVERSAL DYNAMICS, INC.

A Company of MANN+HUMMEL

13600 Dabney Road

Woodbridge, Virginia 22191-1446 (USA)

1-703-491-2191 • Fax 1-703-490-7001

