and the Long Reach of Control

EXPERION SCADA

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Where do you think I come from? Longreach?
Experion SCADA & the Long Reach of Control
Experion SCADA & the Long Reach of Control

**Experion R410**
- 300,000 SCADA Points
- Improved ControlLogix Interface
- OPC Non-scanned parameters
- SCADA Point Processing
- New Calculation Algos
- Dynamic Alarm Suppression
- Alarm Tracker
- ACM Alarm Help
- 64-bit OS support
- +++ much more

**Experion R430**
- Pan & Zoom Displays
- Equipment Templating & Displays
- 5,000 Controllers / RTUs
- Scanning Sub-system Enhancements
- EFM Data Collection & handoff
- Gas Operations Suite

What’s New for SCADA in R500

- Backup Control Center
- Management of Change: Ethernet Displays
- New SCADA Protocols for User Defined Parameters
- RTU2020 Integration
- Third Party Package Configuration Efficiency
- Liquid Pipeline Application Suite Enhancements
Backup Control Center

Better Availability for Critical Infrastructure Protection
Backup Control Center

### System Status

<table>
<thead>
<tr>
<th>System Hardware</th>
<th>Controller Interfaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stations</td>
<td>Consoles, Printers</td>
</tr>
</tbody>
</table>

### Server Redundancy

<table>
<thead>
<tr>
<th>Status</th>
<th>Server Locations</th>
<th>Advanced</th>
</tr>
</thead>
</table>

#### System Status

- **Botany Bay Center**

<table>
<thead>
<tr>
<th>Server</th>
<th>Current State</th>
<th>Link Status</th>
<th>Synchronization Details</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVER0A</td>
<td>Running</td>
<td>Link 0</td>
<td>Last synchronization on 31/12/2015 12:35:53 PM</td>
<td>Make Active</td>
</tr>
<tr>
<td>SERVER0B</td>
<td>Running</td>
<td>Link 0</td>
<td>Last synchronization on 31/12/2015 12:35:53 PM</td>
<td>Pending</td>
</tr>
</tbody>
</table>

#### Server Redundancy System Status

**Not Loaded**  VIC_ACE_5  OFFNET  U 00 Server: Connection FAILED

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EFM Protocols with EFM Export Option

- Enron Modbus
- Flow-X EFM
- Bristol Babcock EFM
- Omni
- Emerson ROC
- ABB TotalFlow
- Honeywell RTU2020

• Export to:
  - FlowCal (CFX files) or
  - CSV file

Support for Gas & Liquids EFM
- Gas: API 21.1
- Liquids: API 21.2
Quick Builder Concurrent Users & MOC

Up to 12 concurrent Users
- A ‘LEAP’ enabler

Plus Management of Change
- Who changed what when
- Compare to runtime

Quick Builder
Experion’s configuration tool for SCADA points & Equipment templating

Supports API 1168 Recommended Practice for Pipeline Control Room Management

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Display Builder Display Repository & MOC

Version control
Check in, check out

Supports API 1168
Recommended Practice for Pipeline Control Room Management
User Defined Parameters: Scanned

New types: “Scanned – Analog” “Scanned – Status”

Config for this parameter

Use case: Motor Status

Use case: Flag arrays

Use case: PLC PID Loop

Do more with less: Keep related data together
Example Use Case: PLC PID Loops

User defined scanned parameters on an Analog point

PLC Configuration Options such as PID Tuning
RTU2020 Integration - System Status

Same diagnostics as accessed in RTU Builder

RTU2020 specific tabs

Data direct from RTU2020
RTU2020 Integration - Config Efficiency

Experion Quick Builder
DNP3 Controller

RTU Builder
Project
RTU2020 Integration - Config Efficiency

Converts RTU2020 Project into Experion Points & maintains it.
Preconfigured RTU2020 EFM Templates in Experion
3rd Party Package Integration

**As-Is Workflow**

1. PLC Program
2. Create Spreadsheet
3. Create points
4. Test points

**To-Be Workflow**

1. PLC Program
2. Create Templates
3. Create points
4. Test points

For Allen-Bradley ControlLogix on Ethernet/IP

Reduce time and effort for PLC point configuration
3rd Party Package “Updates” Workflow

As-Is Workflow

- Update PLC Program
- Update Spreadsheet
- Update points
- Validate points
- Test points

To-Be Workflow

- Update PLC Program
- Validate points
- Update points
- Test points

Reduce time and effort for point update and validation
3rd Party Package - Config Efficiency

Experion Quick Builder Controller

ControlLogix Project
Operational Application Suite Enhancements

Addition of Liquid Pipeline Apps
- Leak Detection
- Batch Tracking
- Linepack

Comply to standards:
- API 21.2 liquids measurement
- API 1130 & API 1149 leak detection
What’s New for SCADA in R500

- Backup Control Center
- Management of Change: Points & Displays
- New SCADA Protocols for EFM\textsc{s}
- SCADA Point User Defined Scanned Parameters
- RTU2020 Integration
- Third Party Package Configuration Efficiency
- Liquid Pipeline Applications
Experion SCADA

- HMI Design
- Alarm Management
- Distributed System Architecture
- Virtualization Solutions
- Radically Simplified Configuration
- Superior Operator Experience