Rockwell Automation On The Move
May 16-17 2018   Milwaukee, WI

CT491– ESE's CIP Solution Provides Enhanced Operations Performance for Consumer Products Customer

Configurable CIP Solution
Adam Sharrett / Technical Sales Manager
About Us

- 30 years of dedication to the Food and Beverage industry
- National coverage
- Dedicated service and support engineers
- 24x7x365 on-call support
- 100% Employee-Owned
Agenda

- Platform Benefits
- Display Look and Feel
- Control Visibility
- Operator Messages
- Recipe Editing
- Valve Pulsing Sequences
- Reporting
ESE CIP Design

- Flexible design supports 1, 2, 3, or 4 tank systems. Ability to integrate the skid into large distributed systems.
- Safety – reduced PPE requirements and enhanced maintainability.
- Reporting – the right data to the right people at the right time.
- FactoryTalk View SE coupled with a CompactLogix PLC provides a high quality hardware and software platform.
Safety Design

- Designed with safety in mind by separating the high and low voltage control panels
Display Look and Feel

- Greyscale ISA101 look and feel.
- Time reference.
- Blue highlight shows the recipe selected.
- What else do you notice about this main screen?
Display Look and Feel

- Alarm banner
- Low level warning
- Low low level alarm
Control Visibility

- Quickly identify what step the process is in
- One screen for step parameters.
Control Visibility

- CIP control screen while running
- Full visibility of completed and upcoming steps
Operator Messages

- The operator can provide feedback on system operation.
- Feedback is included in the wash report.
- For example, if a low flow alarm occurs, the operator can provide context.
Recipe Editing

- Secured access to recipe editing
- Flexibility to insert/delete/edit steps. You have full access to create what you need.
- Outside resources not required to make changes
Recipe Editing

- **Phase** - An operation that can be completed as a step within a recipe.
- Each phase has set parameters that can be changed and saved.
Recipe Editing

- Ability to select any circuit
- "Global" parameters associated with the circuit
- For example, return flow alarm thresholds can be set in time or volume.
- Access to valve pulsing sequence on the right
Valve Pulsing Sequences

- Operator to specify the valves to be pulsed during the wash.
- Ability to change the time parameters for each step of the sequence
Provides team members with a detailed report that the circuit was cleaned and completed.

Documentation is available for an audit.

---

### CIP Completed Circuits by Date

<table>
<thead>
<tr>
<th>Start Date:</th>
<th>9/17/2017</th>
<th>End Date:</th>
<th>9/19/2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start Time</strong></td>
<td><strong>Circuit Name</strong></td>
<td><strong>Wash Name</strong></td>
<td><strong>Completed?</strong></td>
</tr>
<tr>
<td>9/18/2017 8:57:45 AM</td>
<td>Vinegar Tank 340</td>
<td>Caustic Wash w/ Fresh Solution</td>
<td>YES</td>
</tr>
<tr>
<td>9/18/2017 11:46:37 AM</td>
<td>Vinegar Tank 340</td>
<td>Caustic Wash w/ Fresh Solution</td>
<td>YES</td>
</tr>
<tr>
<td>9/18/2017 12:17:18 PM</td>
<td>Vinegar Tank 340</td>
<td>Caustic Wash w/ Fresh Solution</td>
<td>YES</td>
</tr>
<tr>
<td>9/18/2017 1:49:59 PM</td>
<td>Corn Syrup Tank 310</td>
<td>Tank Wash</td>
<td>NO</td>
</tr>
<tr>
<td>9/18/2017 1:52:39 PM</td>
<td>Corn Syrup Tank 310</td>
<td>Caustic Wash w/ Fresh Solution</td>
<td>NO</td>
</tr>
<tr>
<td>9/18/2017 1:58:30 PM</td>
<td>Vinegar Tank 340</td>
<td>Caustic Wash w/ Fresh Solution</td>
<td>NO</td>
</tr>
<tr>
<td>9/18/2017 2:46:08 PM</td>
<td>Product Lines</td>
<td>Caustic Wash w/ Fresh Solution</td>
<td>NO</td>
</tr>
</tbody>
</table>

This report shows a list of all CIP circuits that were run for a specific date range. Inclusion on this report does not imply that the wash completed successfully.
Wash report - Anyone can view if the wash is meeting temperature, flow, and conductivity requirements.

This report is available for each circuit.

The green check mark lets you know that the entire wash cycle was completed without stopping. A red "X" marks an aborted wash.
The color red notifies an operator that a set point was not reached.
Greater visibility into the process.
Operator messages are now visible on the report.
A CIP system is an investment. What is the ROI on your CIP system?

Optimization - Where can you save money on chemical usage?

Having data like this report is critical.

- This example shows the "truck wash" uses the most chemicals.

- Can improvements be made in the process?
Summary

- Having data is critical in today's world. ESE's configurable CIP solution generates various reports for detailed documentation.
- "The connected enterprise"
  - For example, if you have (30) systems located at various facilities across the country you then have access to each system from anywhere. *Each system looks the same.*
- What type of CIP challenges are you facing?
Thank You!