

# Product Manufacturers Easily Optimize CIP Systems

MAVERICK upgrades clean-in-place (CIP) systems and provides CIP editing software which allows easy management and optimization of CIP operations.

## Objective

Installation of a ControlLogix® CIP system designed by MAVERICK provides customers with the ability to edit CIP data points in the PLC (programmable logic controller) without the need for PLC programming expertise. The system includes a user-friendly interface with functionality to view and edit the steps of a CIP circuit, the step properties (time and temperature) and step sequencing, as well as functionality to upload or download the CIP data to the PLC.

## Results

The CIP editing software provides each customer with the tools they need to maintain and fine-tune their CIP systems, which can result in higher efficiency and cost savings.

## Solution

The CIP Editor is a Microsoft® Windows™ application developed in the Visual Studio™ .Net environment. Data is stored in an XML (extensible markup language) format eliminating the need for database software or servers. Data is organized by CIP system, circuit and steps.

The CIP Editor works in conjunction with MAVERICK CIP PLC code programmed in a ControlLogix PLC using a user-defined data type. All data points in the PLC can be modified through the CIP Editor.

The application uses open process control (OPC) functionality to read and write data to a ControlLogix PLC. Connectivity to the ControlLogix PLC requires device integration software.

The MAVERICK team adds plant outputs, CIP systems and circuits to the CIP Editor configuration. The editor application then allows users to utilize the configured outputs in all CIP systems and their circuits.

A configured CIP circuit includes global properties for utilization throughout a CIP, pin mappings and steps.



Global circuit properties, for example, can include high and low supply / return flows and temperatures, a specific short wash or sanitize step to skip to for those wash types or a conductivity setpoint when running a caustic wash. These properties are customizable by facility.

The application provides mapping of outputs for up to 48 pins per circuit. Modification of CIP pinning is presented in rows of steps and columns of the mapped outputs. An output is toggled via a check box.

Up to 99 CIP steps can be added to a CIP circuit. Users can delete or modify the steps, and each step includes a time and temperature property.

Copy and paste functionality allows users to create new circuits and steps quickly.

The application includes functionality to backup and retrieve the CIP application data.

This is a secure application with password protection for data modification and PLC write functionality.

### The MAVERICK Difference

MAVERICK's team of professionals encompasses a vast skill set. Our engineers and programmers work closely together to provide useful tools for our end users.



A Rockwell Automation Company

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