





## **Build With Drag-and-Drop Blocks**

No programming experience? No problem.

ACE helps machine specialists create effective control programs using a toolbox of input, output and feature blocks that drag-and-drop together.

```
MC4-24-20 Controller
Input

Lever Lever-1

2-Position Valve Valve-1

Single-Acting Linear Actuator Actuator-1
```

```
MC4-24-20 Controller
Input

CAN Joystick Right Steering Steering 1
Left YAxis Up Down
Configure Components...

CAN Joystick IEEE/CYSUG3

X Axis Right 3-Position Valve Valves A B Double-Acting Linear Actuator Actuator 2

Button Button Steering 1

Variable Bidirectional Pump Rump 2

A B Bidirectional Rotary Actuator Actuator 2

Bidirectional Rotary Actuator Actuator 3

Bidirectional Rotary Actuator Actuator 4

B Double-Acting Linear Actuator Actuator 4

B Double-Acting Linear Actuator Actuator 4

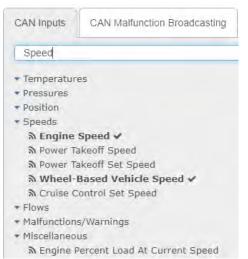
Configure Components...

Configure Components...
```

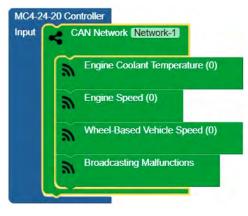
Ready-to-use blocks handle the hard part of integrating human inputs, reading CAN devices and sensors, applying logic, and mapping it all to outputs such as valves, pumps and lights. Prebuilt logic blocks also make it quick and easy to design complex control schemes like steering.

#### **Work Faster With Built-In Libraries**

ACE includes a built-in library of CAN J1939 parameters to save time building your project. Search for CAN inputs by name and SPN, or browse by category to add them to a CAN network block. Adding parts to your project is also easy with the built-in Parts Catalog. Find ready-to-use Sun Hydraulics® valve and Murphy® PowerView® display part blocks, or save time by adding your most frequently used parts (sensors, joysticks, valves and pumps) to your local database.



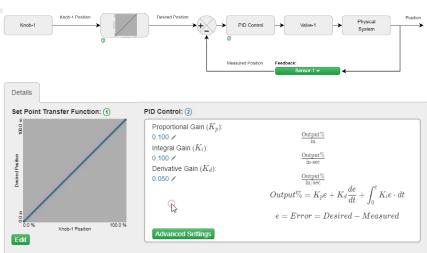




## **Design Closed-Loop Controls With Confidence**

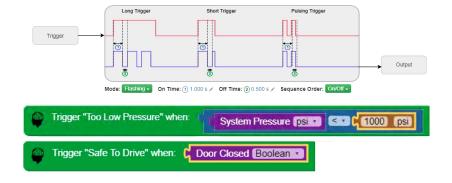


ACE doesn't sacrifice power for convenience. Advanced closed-loop control schemes aren't just possible, they are easy to implement. With the built-in closed-loop control block, ACE lays out the function visually and to help you understand and tune for effective, efficient control.



#### **Create Smart Timers and Triggers**

Setting up simple or advanced logic-based triggers only takes a few clicks. Build timers using drag-and-drop blocks for comparisons, inputs, outputs, math and more.



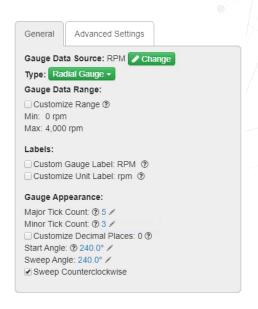
### **Generate Helpful Wiring Lists**

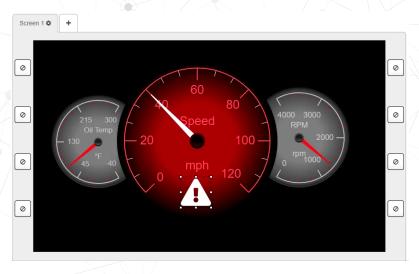
From			То
Connector ▲ ▼	Pin ▲ ▼	Description ▲ ▼	Connector ▲ ▼
MCx A	7	Input A07 (Frequency Capable)	Green Button
5V Power Supply (+)	5V Power Supply (+)	Available 5V sensor supplies: MCx A pin 1 (Confirm usage does not exceed 500mA), MCx C pin 1 (Confirm usage does not exceed 500mA).	Green Button
MCx B	2	Output B02	Headlights (Output Control)
VBatt Power Supply (-)	VBatt Power Supply (-)		Headlights (Output Control)
MCx A	10	Input A10 (Frequency Capable)	Left Tread (Feedback)
MCx A	1	Sensor Supply 1 (+) (Confirm usage does not exceed 500mA)	Left Tread (Feedback)
MCx A	13	Sensor Supply 1 (-) (Confirm usage does not exceed 500mA)	Left Tread (Feedback)

When your system is fully configured, ACE takes the headache out of harnessing with auto-generated wiring lists exportable in PDF and Excel-friendly formats.

# **Design Coordinated Displays**

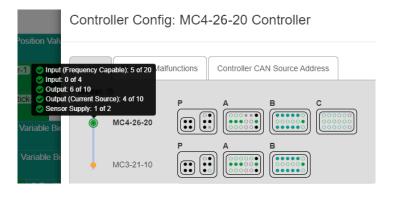
Configuring a display connected to the controller is fast and easy with ACE. Use the built-in library of elements and icons to design effective and attractive user interfaces that are ready-to-load onto Murphy PowerView® displays. When designing is complete, ACE automatically defines the CAN communication layer between the controller and display.







#### Built For uControl<sup>TM</sup> Mobile Machine Controllers





Use uControl mobile controllers to get the most of any machine with flexible universal inputs and ultra-precise software-selectable outputs. Available in a range of I/O options, uControl mobile controllers are the perfect fit for a variety of equipment needs and applications. When needs change, ACE makes it easy to scale your projects up or down the controller family without having to rebuild the entire project.



