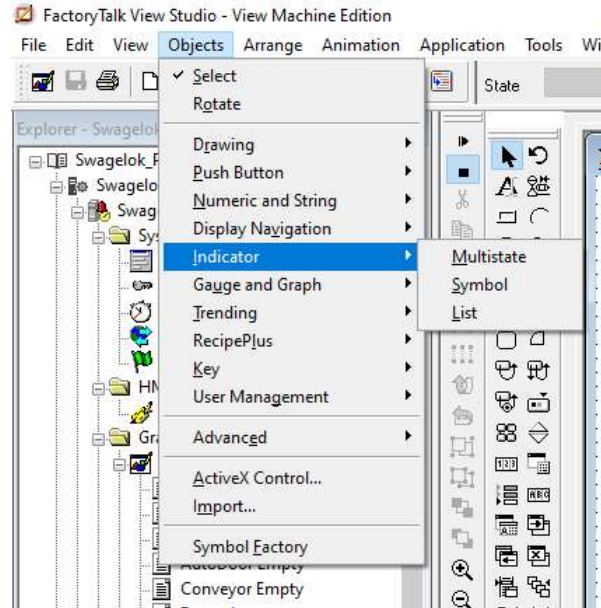# Creating Indicators

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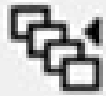
Indicators

- Indicators provide operators with visual clues as to how a machine or process is operating

| Use this graphic object	To show this
Multistate indicator	The state of a process, on a panel that changes its color, image, or caption to indicate the current state. Each state is set up to correspond to a numeric tag value.
Symbol	The state of a process, using a monochrome image that changes color to indicate the current state. Each state corresponds to a numeric tag value. This object is useful for showing the state of a process or operation at a glance.
List indicator	The state of a process, using a list of possible states with the current state highlighted. Each state is represented by a caption in the list, and corresponds to a numeric tag value. This indicator is useful if you want to view the current state, but also want to see the other possible states. For sequential processes, the list can alert the operator about what happens next in the process.

Multistate Indicator

- Created the same way as other Graphic Objects
- Displays the current state of a process or operation by showing a different color, caption, or image to reflect different states.
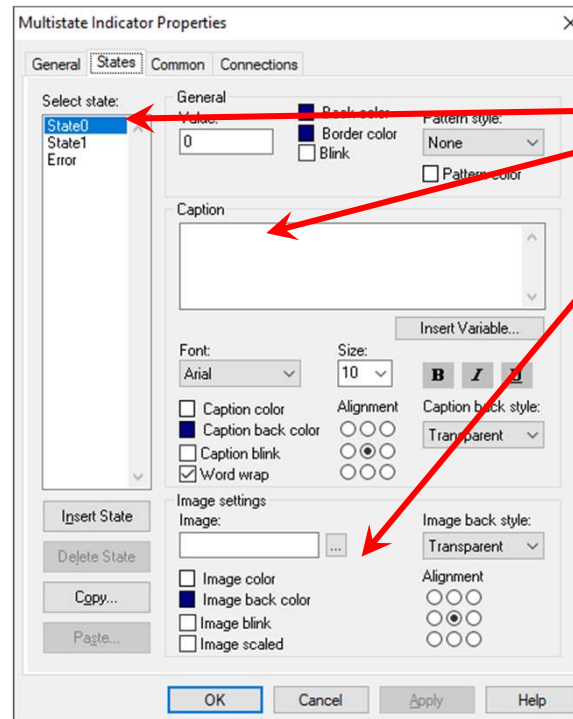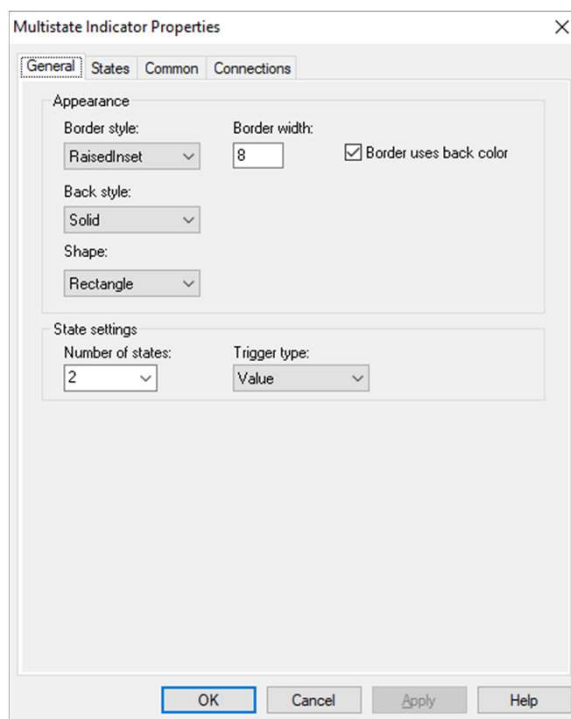
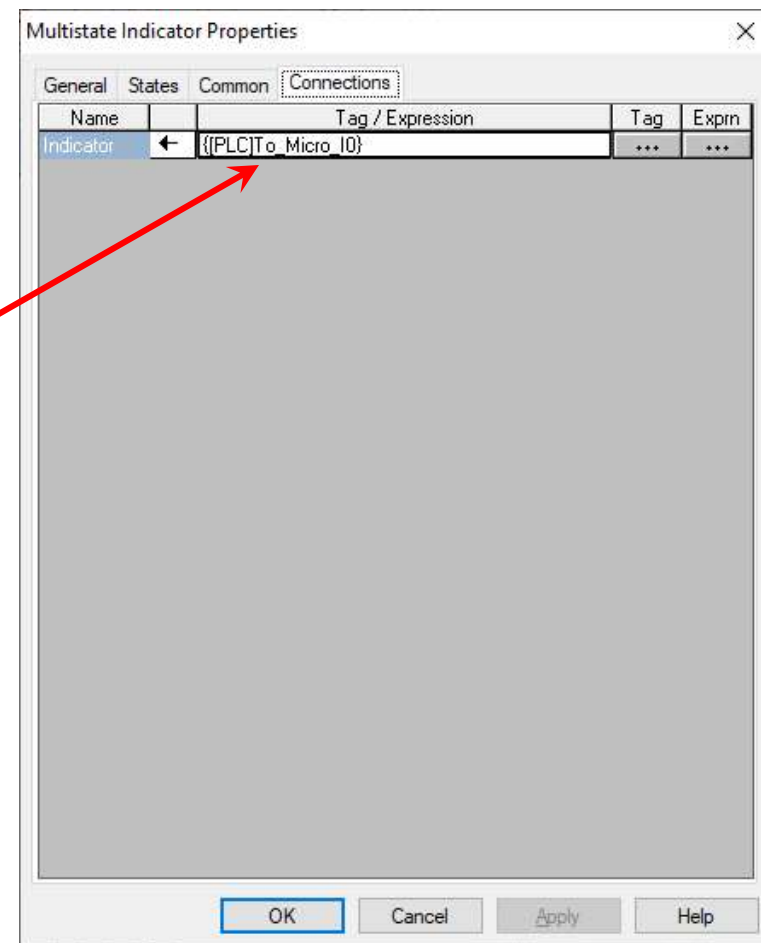Enter appearance options, caption or image for each state
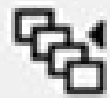
Multistate Indicator

- You configure the state values of the multistate indicator. Then, at run time, the object displays the state whose value matches the Indicator connection value at the data source.

- You can enter a maximum of 2000 states plus the Error state.

Symbol Indicator

- Symbol indicators work well for showing the state of a process or operation at a glance.

- For example, you might create a symbol indicator with a picture of a motor and set up the states so that the motor changes colors to show the state:

  - red if there's a problem

  - green if everything's okay
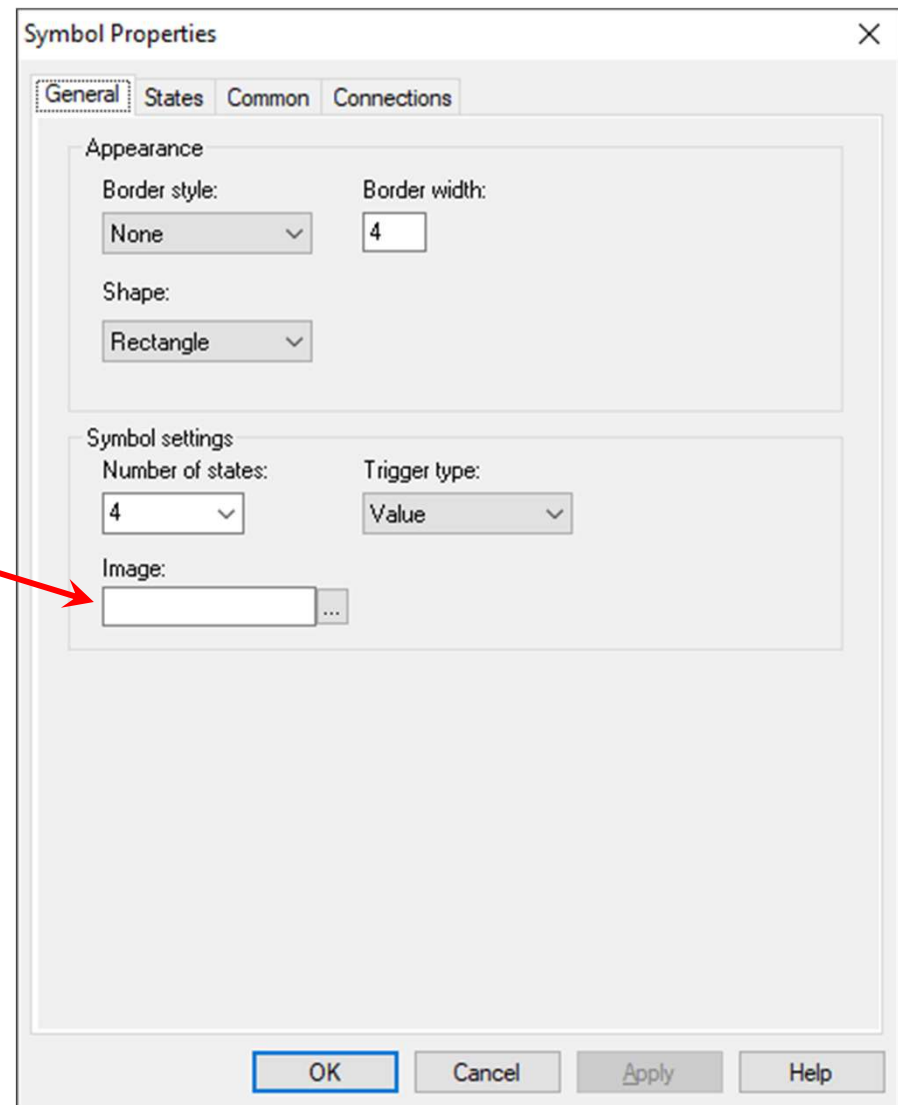
  - Black if the motor is not in use
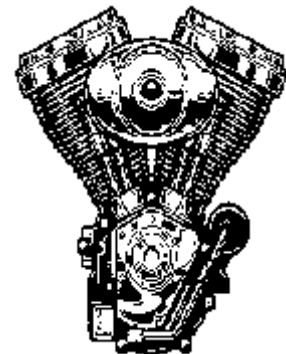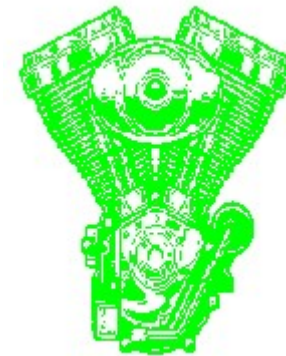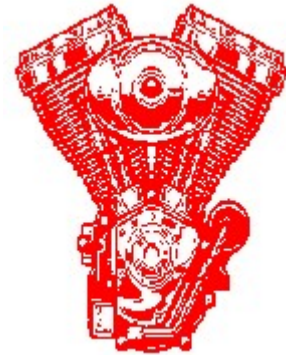
Symbol Indicator

- You can assign unique attributes (such as color, blink, and so on) to every state, but the monochrome graphic image you assign to the indicator is used for all states.

- The symbol indicator supports only monochrome bitmap images.

  – To create a monochrome image, load an image into paint and save it as a monochrome bitmap

Symbol Properties ✕

General | States | Common | Connections

Appearance

Border style:
None

Border width:
4

Shape:
Rectangle

Symbol settings

Number of states:
4

Trigger type:
Value

Image:
[   ] [...]

OK | Cancel | Apply | Help

- The list indicator displays a list of states for a process or operation and highlights the current state.

- Each state is represented by a caption in the list.

- This type of indicator is useful if you want to view the current state but also want to see the other possible states.

- For sequential processes, the list can alert the operator about what happens next in the process

Gauges, Bar Graphs, and Scales

Swagelok®

- Gauges and bar graphs provide a way to estimate machine or process values in situations where a precise measurement is not necessary.

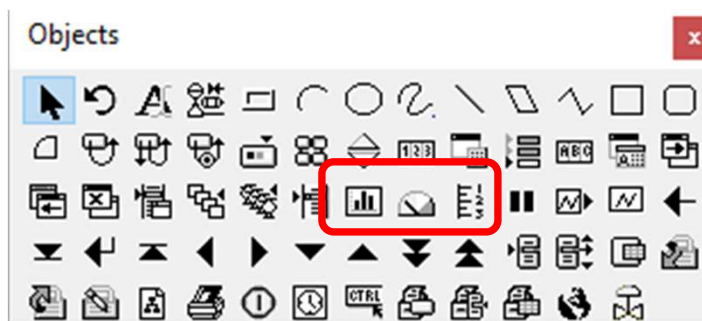| Use this graphic object	To show this
Bar graph	Numeric values in bar graph format. The bar graph increases or decreases in size to show the changing value.
Gauge	Numeric values in dial format. The gauge's needle moves around the dial to show the changing value.
Scale	A static indication of the range of values for a bar graph.

Note: By default, gauges include a numeric scale. If you want to add a scale to a bar graph, you must use the scale graphic object and add the scale values manually using the text object.
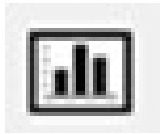
Bar Graph

- Use the bar graph object to show a control's value at the data source. The bar graph increases or decreases in size to show the changing value. You can configure thresholds for the bar graph to alert the operator to error conditions.

Gauges

- The gauge is a semi-circle with a needle and range of values that represents a traditional meter or dial.

- Use the gauge object to display a control's value at the data source.

- The gauge's needle moves around the dial to show the changing value. You can configure thresholds for the gauge to alert the operator to error conditions.

- For the gauge to display threshold values, you must use the "Fill" gauge needle sweep style.
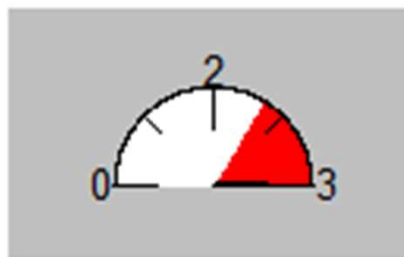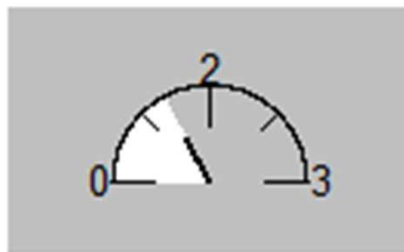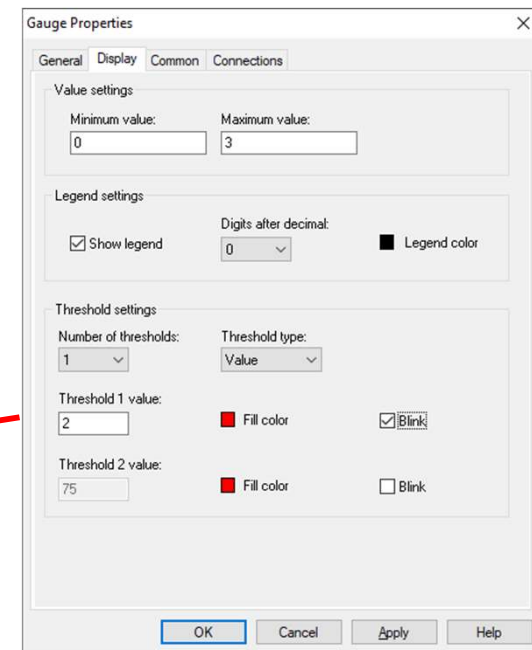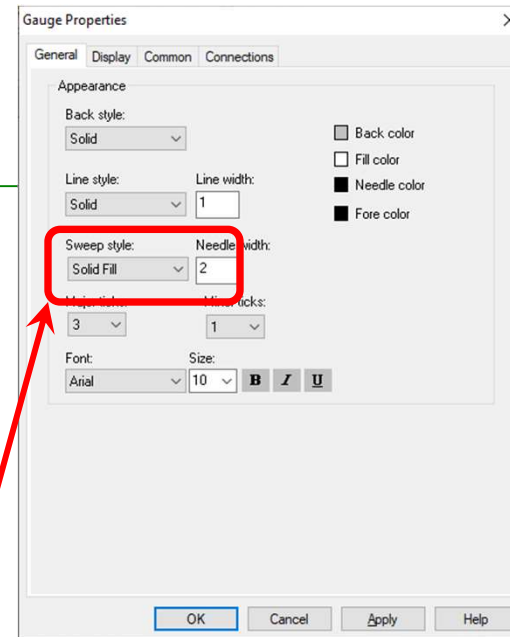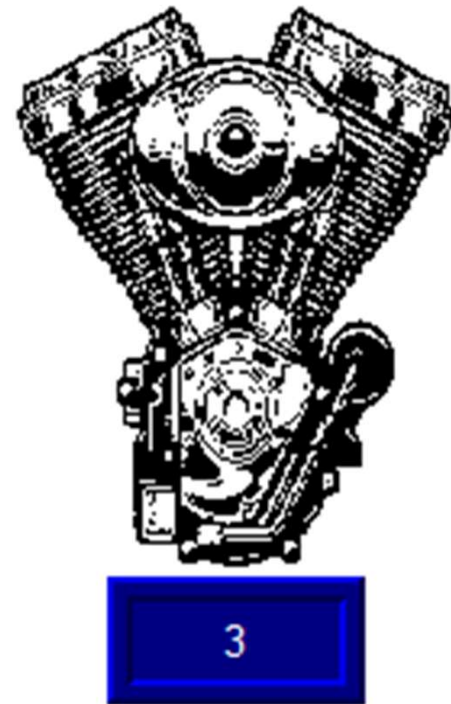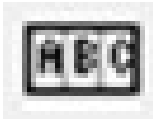
Numeric Display

- Use the numeric display object to show the operator numeric information from the data source.

- For example, you might use a numeric display to show the current temperature of an oven in a bakery.

String Display

- Use the string display object to show the operator messages from the data source.

- For example, you might set up strings that report on the state of a process or operation, or that provide instructions about what the operator should do next.

- At run time the display shows the operator the string value of the Value connection at the data source.

this is a test

+ Text_ex   'this is a test'