GUI Facelift – Color Images

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LV GUI - Supplementary Material

GUI Facelift – Color Images



Figure 11.5a The Main Rymox Panel



Figure 11.5b Two Subsystem Panels: Lime Delivery and Solid Feed systems.



Figure 11.6 The Temperature Subsystem Panel – the target of the GUI Facelift.



Figure 11.7 GUI density is reduced by hiding labels and numeric displays until one of the buttons in the lower left corner of the panel is pressed. Selecting the "Switch Until Released" mechanical action causes the hidden GUI objects to remain visible only while the buttons are held down.



Figure 11.8 Each reactor zone changes color to reflect the current operational state. When heating is active, the reactor zone glows a bright orange. When cooling is underway, the corresponding temperature zone graphic turns blue, and LEDs appear to indicate the number of active cooling jets.



Figure 11.9 Pict Rings are used to animate the reactor zones. All possible reactor states are represented in a different frame of the pict ring. The current reactor states are polled on the diagram, and the pict ring indicators are updated accordingly.



Figures 11.10, 11.11, and 11.13 State images were constructed for all possible reactor states.



Figure 11.12 Heating elements were carefully masked and colorized using Photoshop's Hue/Saturation dialog (accessed from the "Image" menu).



Figure 11.15 Pict ring images for all possible combinations of heating and cooling were prepared for each zone. This was necessary to accommodate the sloping profile of the reactor graphic.



Figure 11.16 Custom graphic elements enhance the look and feel of this panel and promote consistency with the main panel. Notice that - like the main panel - this panel also features GUI buttons to selectively reveal discrete temperature values and GUI labels.



Figure 11.17 The Setpoint and Tuning panel for Temperature Zone #4. The historical trend plot in the lower half of the panel facilitates control loop tuning.