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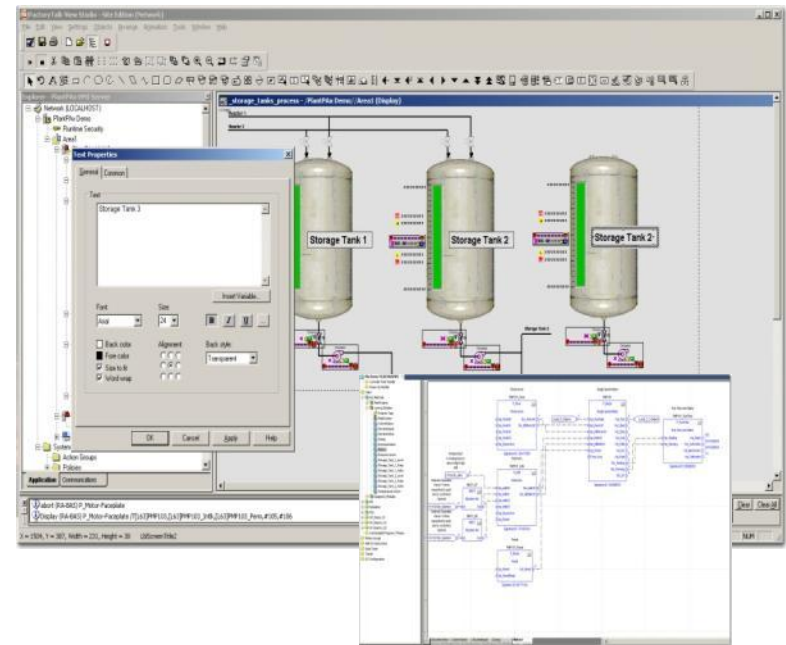
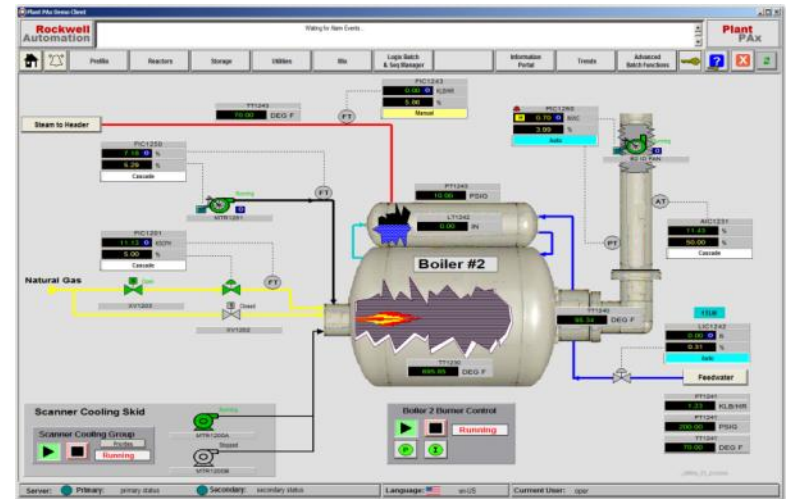
## Process System Tour for Operators and Control Engineers

# Lab Agenda

This Lab will consist of two parts.

The first part of the lab will have you taking an operator role and touring a simulated plant environment to illustrate some examples of standard control capabilities, features and functions as applied in a PlantPax™ application.

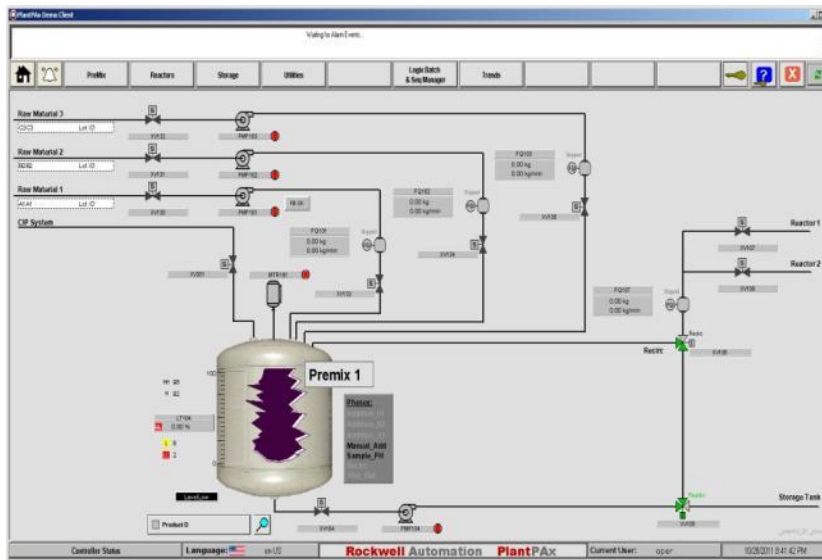
The second part of the lab will be presented from the perspective of the controls engineer who is tasked with adding another storage tank to the application.



# PlantPax Library and Operator Faceplates

The application has been built using the PlantPax Library of Process Objects currently available (V2.0) and is intended to provide a sampling of the engineered device level components available to address typical process applications.

The lab user will step through the various tabs on the faceplates to control devices such as valves, pumps and motors.

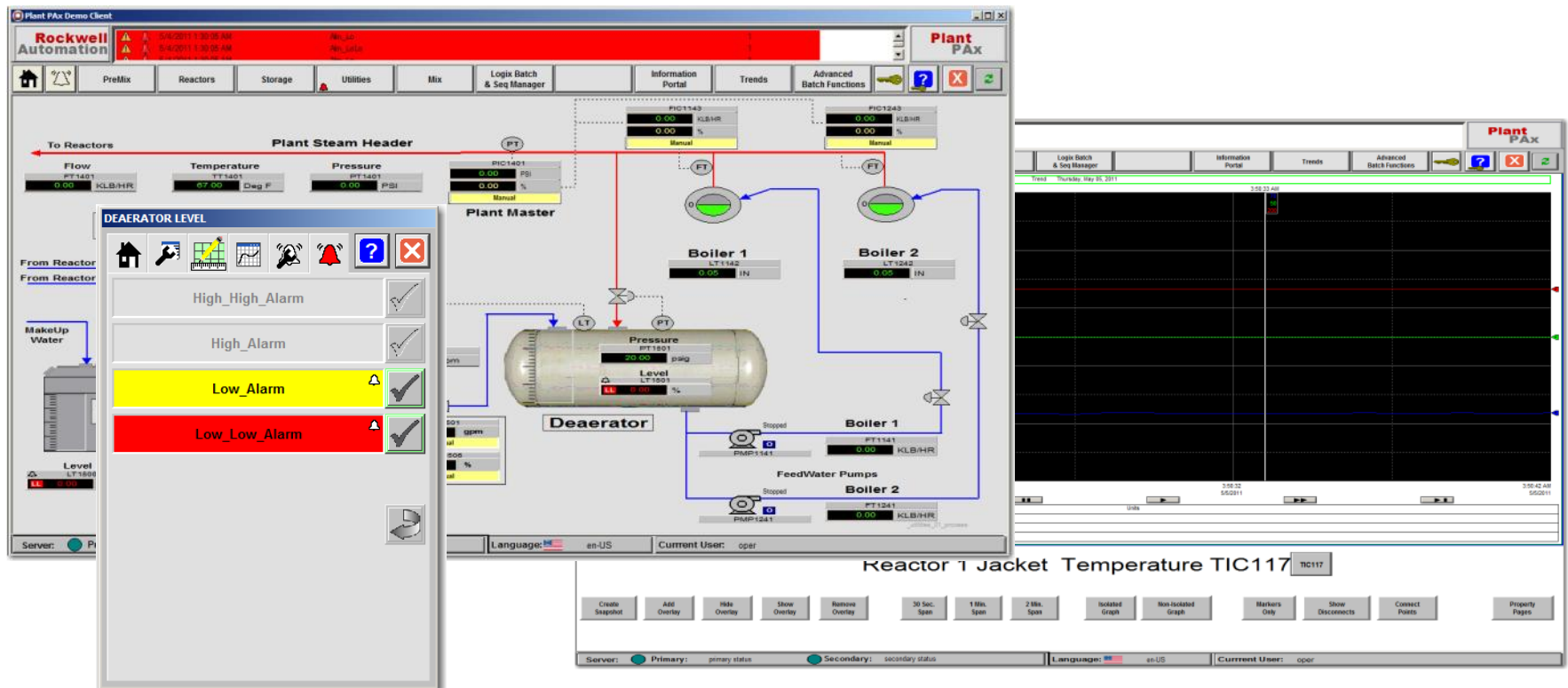


The image shows two operator faceplates. The top one is titled 'DEAERATOR LEVEL' and features a home icon, a wrench icon, a graph icon, a bell icon, a question mark icon, and a close icon. It has a 'Program' button with a lock icon and a 'Program' button with an open lock icon. Below this is a vertical scale from 0 to 100, with 'HH 95' and 'H 80' labels. The bottom one is titled 'CONDENSATE PUMP' and features the same navigation icons. It has an 'Operator' button with a lock icon and an 'Operator' button with an open lock icon. Below this is an 'Enabled' button. The main control area has a 'Drive OK' button and a 'Running' button with a play icon and a stop icon. There are also 'P' and 'I' buttons. At the bottom, there are three data fields: 'Actual' with a value of 16.79, 'Requested' with a value of 60.00, and 'Operator' with a value of 60.00. The ID 'LT1501' is visible in the bottom right corner.

# Operator Trending and Alarming

In process applications trending and alarms are critical to monitoring the process.

The lab user will learn how to add trend pens for data values and use the alarm summary and faceplate alarm tabs to view alarm data.



# Operator Batch and Sequence Control

The first half of the lab also provides you with an opportunity to explore the capabilities of the PlantPAX batch management from an operator's perspective using Logix Batch Sequence Manager (LBSM) to control a simple batch sequence.

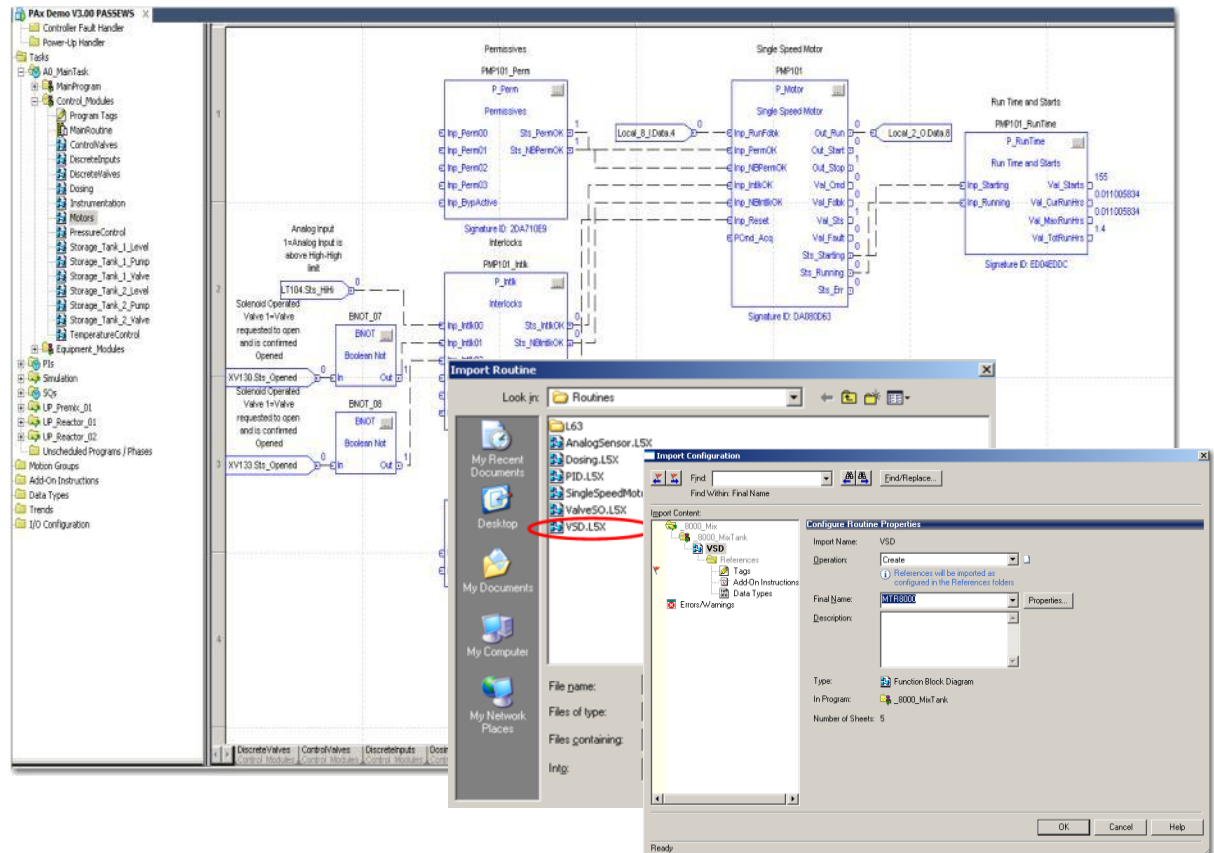
The screenshot displays the Logix Batch Sequence Manager (LBSM) interface for 'Product D'. The interface is divided into several sections:

- Control Panel (Left):** Shows the current status as 'Running'. It includes a 'Scale Factor' set to 100.00%. A sequence grid with 24 steps (0-23) is visible. The first step (0) is highlighted in green, indicating it is the current step. The grid contains checkboxes for various operations: Manual, Wait (0.00), Initialization, Agitation, Mat1 Addition, Mat2 Addition, Mat3 Addition, Recirc, Transfer Out, and CIP.
- Main Display Area:** Features 3D models of 'PreMix 1', 'Reactor 1', and 'Reactor 2'. Each reactor has a 'Phases' panel with options like 'Manual\_Add', 'Sample\_Ph', 'Recirc', 'Xfer\_Out', 'Temp\_CTL', 'Agitate', 'Press\_CTL', and 'Xfer\_Pri\_Prmpt'.
- Batch Information Table (Bottom):** A table with columns for Batch ID, Unique ID, Mode, State, Start, and Elapsed. The table shows three rows of data, all with '0' in the Batch ID and Unique ID columns.

# Adding a Storage Tank - Updating Code

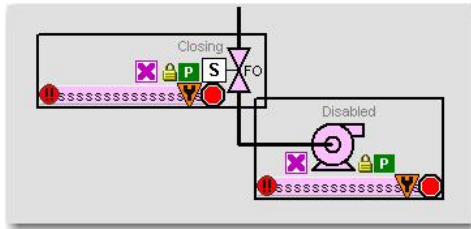
The second half of the lab will be presented from the perspective of the controls engineer who is tasked with adding a third storage tank to the application. This will include adding a valve and a transfer pump.

The lab user will act as the controls engineer and use RSLogix5000™ to add the function block logic for the valve and the transfer pump associated with the new storage tank.

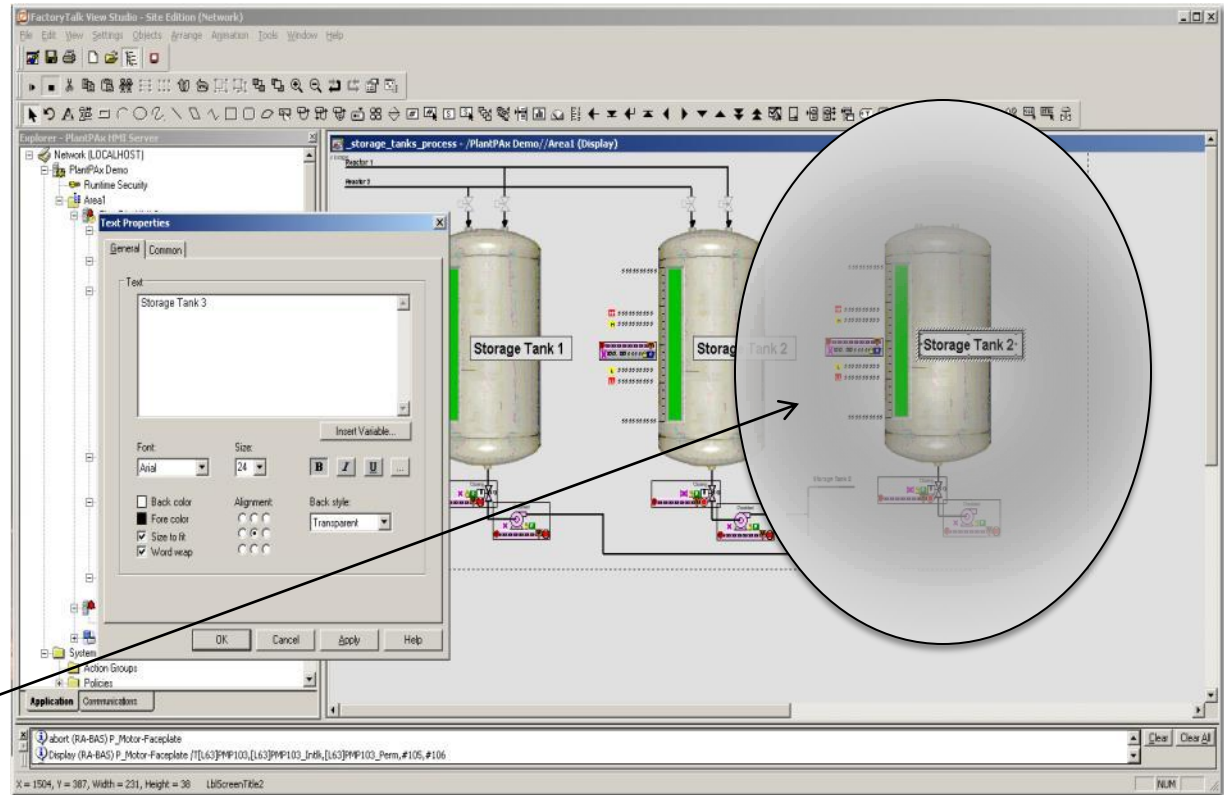


# Adding a Storage Tank - Updating Graphic

The lab user will then update a graphic screen to include the new tank, valve and pump. The lab user will then test the new function block logic by using faceplates to operate the devices and empty the simulated tank.



The lab user will use FactoryTalk View<sup>®</sup> Studio software to copy and paste a new storage tank to the storage tanks graphic screen.



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Questions?