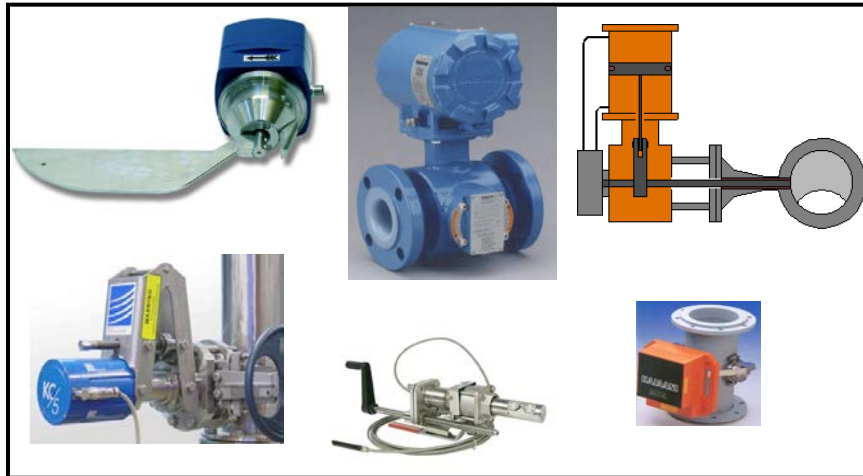


Consistency Control Simulator



Your technical resource for improving Pulp and Paper process control performance

Use the Simulator to:

Train operators

- Improve process knowledge
- Understand control strategies
- Develop troubleshooting skills

Train control personnel

- Develop control strategies
- Optimize control loop tuning
- Select control equipment
- Improve troubleshooting skills

Troubleshoot control problems

- Inject 'what if' disturbances
- Inject process non-linearities

Evaluate design options

- Dilution valve sizing
- Control strategy options
- Identify process bottlenecks

Applications

- Identify the best control strategy design
- Compare sensors and sensor positioning
- Select the best dilution control valve
- Select the best flow and pressure control valves
- Investigate the impact of stock tank mixing performance
- Optimize tuning to minimize consistency variability

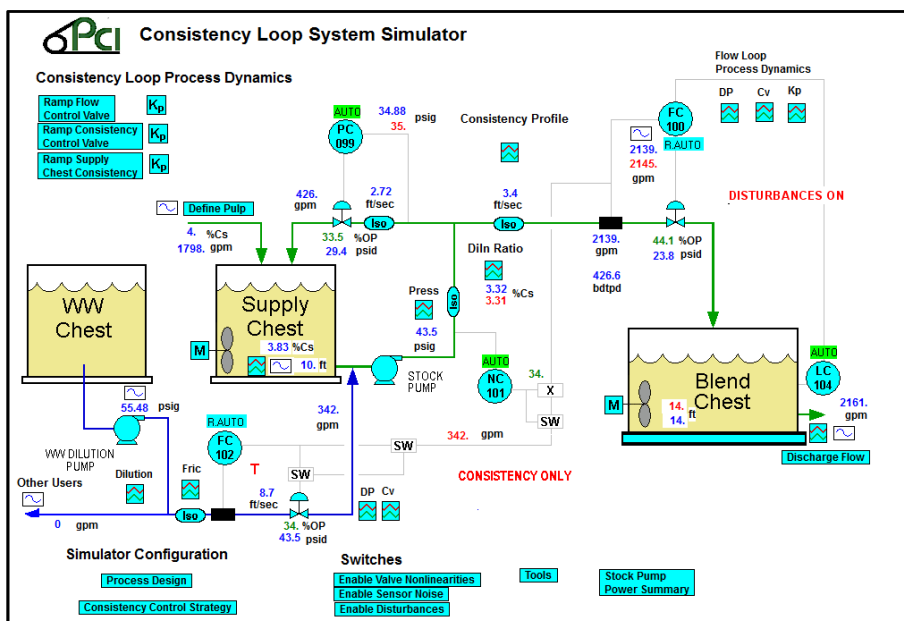
Simulator Pricing

From CDN per license \$2500.00
 USD per license \$2200.00

(Canadian Taxes Included.)
 Fees include a copy of VisSim Viewer, a consistency control simulator handbook, and a USB protection plug.

About ProNamics

ProNamics Control Inc. is based in Vancouver, BC. The company conducts process and control optimization surveys, prepares process simulations to establish best practices and provides a range of training courses related to process control optimization. Visit our web sites at www.pronamicscontrol.com for more information about our services.



Consistency Control Simulator Features

- DCS-like graphical interface
- Extensive trending and data export capability
- Built-in help displays
- Configurable process equipment
 - Sizing of Tanks, Pumps, Valves
- Selectable control strategies
 - Consistency
 - Consistency / Dilution Flow cascade
 - Consistency ratio
- Adjustable controller tuning, filtering, controller configuration
- Disturbance injection capabilities to build troubleshooting skills and conduct sensitivity analysis

Controller Operator Station

Controller Operating Settings

Tag: NC101
Supply Chest Consistency

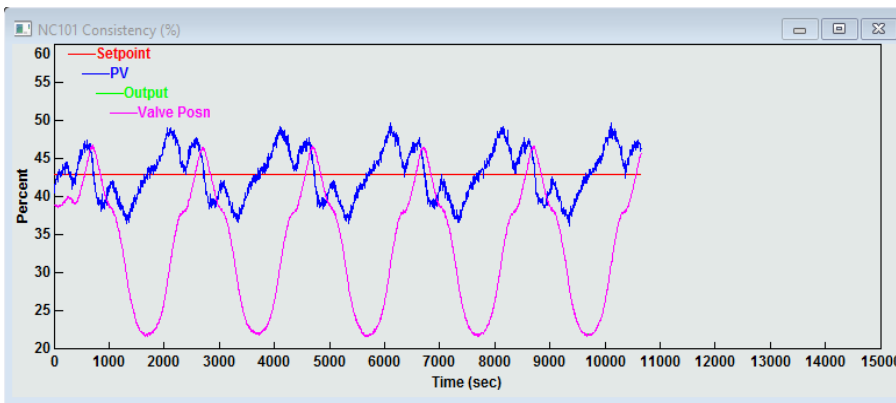
Loop Tuning... Loop Config...

Man Auto Casc

SP: 3.29 %Cs
PV: 3.29 %Cs
OP: 34.89 %Output
New SP: 3.29

OK Cancel

Trend Plots



PID Controller

PID Controller Configuration

Loop Information
Tag Name: NC101
Tag Description: Supply Chest Consistency

Engineering Units
EU Zero: 2 EU Span: 3 Units: %Cs

Control Action
 Direct (PV to OP) Reverse (PV to OP) Enable SP Tracking Enable Override Control

Initial Operating Mode
 Man Auto Casc Initial Operating Values
Initial SP: 3.5 Initial OP: 35

Control Interval (Sec): 0.2 Ratio Derivative Time to Derivative Filter: 5

Controller Type: PI Classical Cont. Gain (RDu/VSpan): 0.2 Reset Time (min/rep): 0.05

Default Tuning Parameters
Controller Type: PI - Classical Form
Cont. Gain (RDu/VSpan): 0.2 Reset Time (min/rep): 0.05

Default PV Filtering
 Enable PV Filtering Initial Filter Time Constant (Sec): 2

OK Cancel

Valve Selection

fcv102 Properties

Valve Series_NCV101: Fisher V-150
Valve Size_NCV101: 4 inch
Generic Valve Flow Characteristic: Equal Percentage
Generic Valve Max Cv: 1000

OK Cancel

Fan Pump Configuration

pump Properties

Pump Selection: Generic Fixed Speed Pump Curve
Stock Pump Speed (Nominal): 1180
Pump Design Flow: 2000
Pump Design Head ft: 120
Pump Best Efficiency: 81
Trim Impeller by %: 0

OK Cancel

Disturbance Injection

sine1 Properties

Supply Chest Cons Step Size,%Cs: 0
Supply Chest Cons Cycle Period, sec: 800
Supply Chest Cons Cycle Amplitude, %Cons: 00.1

OK Cancel