

TLO APRON FEEDER CONTROL CASE STUDY

Our Goal:

To automate apron feeders speed control in order to maintain rate over train load out conveyor.

Consolidate roles for TLO operation as current operation required a dedicated operator to manually operate the rate into TLO conveyor.

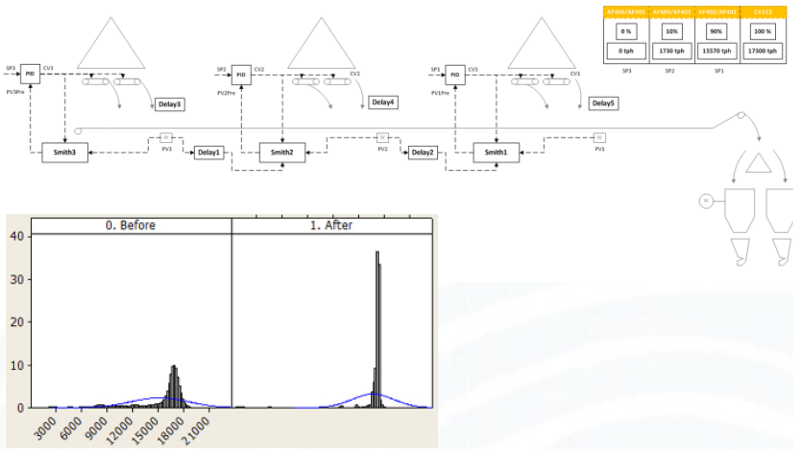
Our Solution:

A Feedback control strategy was design, approved and implemented within a 5 day period.



Wilson Florez

Co-founder & Director
Principal Process Control Engineer



Key Insight:

"The control on the apron feeders was not a simple automation. It was also taken to the next step by the use of Smith predictors (an advanced process control strategy to eliminate dead time).

The use of various smith predictions along the conveyor allowed to reduce variability even further."

Unlocked Potential:

The goal increase rate control was achieved increasing plant performance.

Operator could dedicate his attention to other important tasks. Reduction of Standard Deviation in 3.8% and increase in rate of close to 1430 TPH.

Key Success Factors



Time 5 Days



1 Process Control Engineer



Money \$9,000



Tools



Cimplicity & GE PLC's

