



# Control Loop Optimisation

Loop Tuning · Measurement filters · Feed-forward & cascade strategies · Disturbance rejection · Interacting System decoupling · Training



## Control Loop Tuning & Optimisation...

Are many of your existing control loops stuck in MANUAL? Are your plant operators fed up with 'babysitting' troublesome control loops? Have you lost faith in automation?

Using our process control knowledge and experience in *processes*, we will review your control loops and apply appropriate remedial actions. These may include:

- MSA (Measurement System Analysis – is the information usable?)
- Signal filtering (considering the process characteristics)
- Control Element review (is your process actuator up to the job?)
- Appropriate control strategy (based on best practices)
- Appropriate Loop Tuning Parameters
- Best way to deal with disturbances or interactions.

We use the leading software tools for system identification in order to obtain the best balance between performance and robustness *on your process*.

Through our experiences with practical operational issues, we are able to provide rugged regulatory control solutions, which always provide a stable platform from which to further optimise the process.

***"We just had the best few days of production since our summer shutdown and the cooling drum valve is working great."***

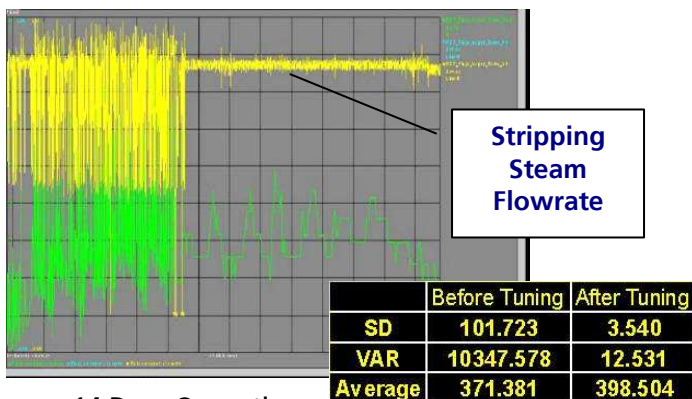
*(I. Nener, Process Engineer, Brunswick Smelter, Xstrata Zinc; 2005-11-07)*

## Past Clients & Activities...

- Brunswick Smelter (Xstrata Zn) – Sinter plant Moisture controls.
- Sudbury Smelter (Xstrata Ni) – Roasters, Furnace & Acid Plant.
- Falcondo (Xstrata Ni) – Topping Plant (Petroleum Refining) controls.
- Kidd Creek (Xstrata Cu) – 'Embedded' process control support engineers support metallurgical complex (Mill, Cu & Zn plants).
- Kidd Creek (Xstrata Ni) - Montcalm Circuit Commissioning.
- Raglan Mill (Xstrata Ni) – Integration of Grinding Circuit Controls (Multivariable Controller).
- CCR Refinery (Xstrata Cu) – HCl Recovery Unit.
- Design, Engineering & Optimisation of Controls on Automated Pilot Plants (HPAL, Caron, Roasters & Ni Refining).
- Eland Mill (Xstrata Alloys) – Stabilising & Grinding

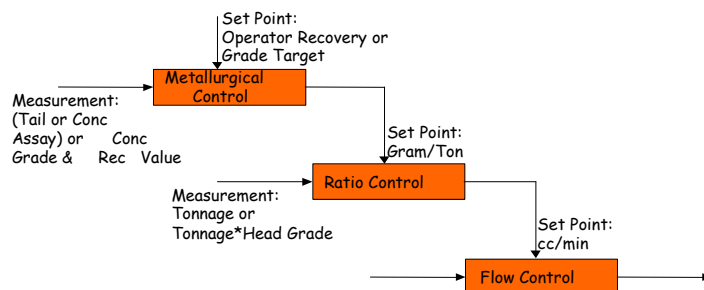
### Loop Tuning

(Falcondo – Xstrata Ni)



14 Days Operation

### Layered (fault tolerant) Reagent Addition Control Strategy (Strathcona & Kidd Concentrators)



- \* Loops are PI/PID controllers for supportability
- \* If problems occur, operators may turn off one level of control at a time

## Contact Us...

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