

Metso

Intelligent flotation solutions

ExactLevel™

One of the most important control parameters in flotation processes is the froth bed thickness of each flotation cell.

In many cases, it is used in parallel with the aeration rate to adjust the metallurgical recovery and concentrate grade of the flotation unit. Active control allows the operator or closed loop expert flotation control system to keep a flotation circuit in balance and in optimal metallurgical performance with changing feed grade.

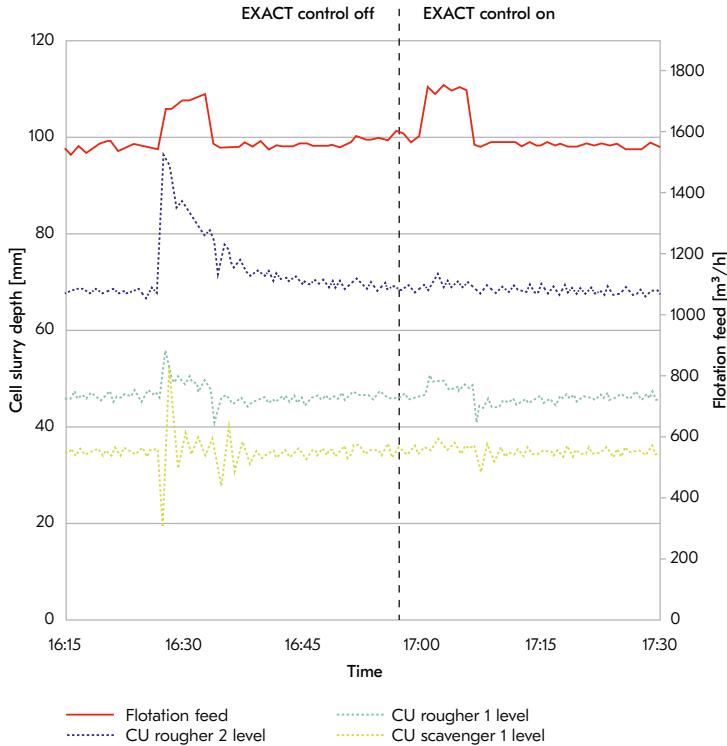
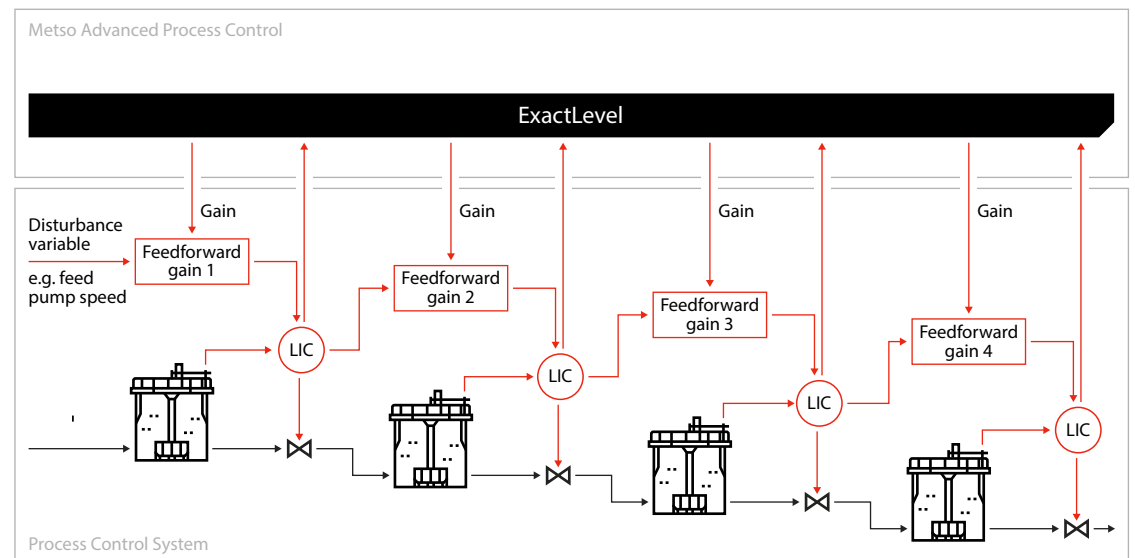
Precise level control has become even more important with increasing performance requirements. The feed flow rate to a flotation cell will fluctuate by the throughput variation in the grinding circuit, or cleaner flotation recirculation by variation of the feed grade. In a bank of cells connected in series, any disturbance will propagate downstream at an increasing rate.

The quality of level control is affected by many components, such as design of the flotation machine, level measurement and the general condition of equipment. These are prerequisites for effective control that also need suitable algorithms.

Metso ExactLevel minimizes the oscillation of cell levels by adapting to the process state and immediately transferring information about disturbances arriving at the first cell to the following cells in the row. The control solution significantly reduces control error and provides faster disturbance rejection compared to conventional PID control.

ExactLevel control solution can be implemented to almost any process control or PLC based system controlling flotation cell levels. ExactLevel is also a built-in functionality in Metso Cellstation flotation cell controller.

[Read more at metso.com](https://www.metso.com)



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