# Open feedback loop

Turns out that when the , we get a steady approximation.

Suppose

Then , ,

And

So

Suppose

Then , ,

Then , ,

And

So

# Closed feedback loop

Monitor the queue length and ask for a target length.

## based on magnitude of deviation

If is too small, the target length is not reached. Mostly

If is too large, the queue length is fluctuating a great deal.

If deviation is too small, the action is too small.

## based on cumulative error