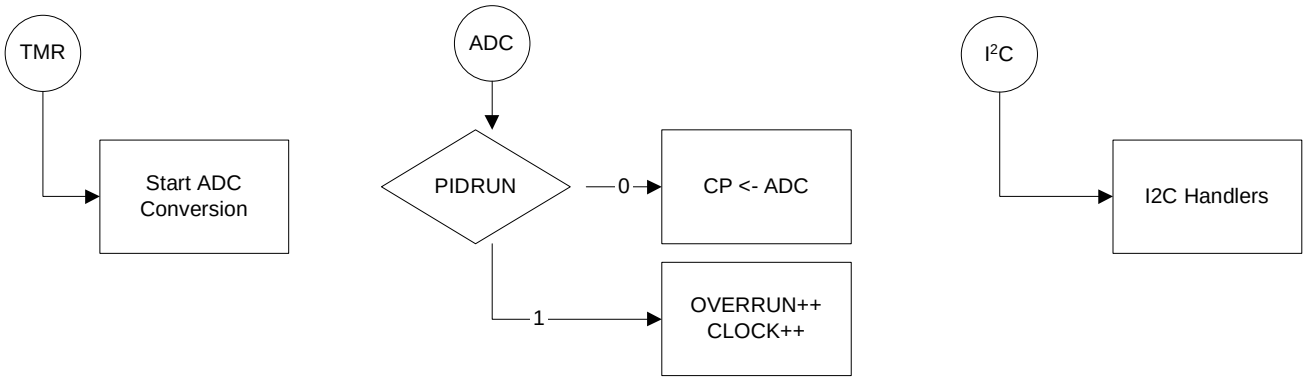
Interrupt Service Routine (ISR) Handlers ∇∇∇

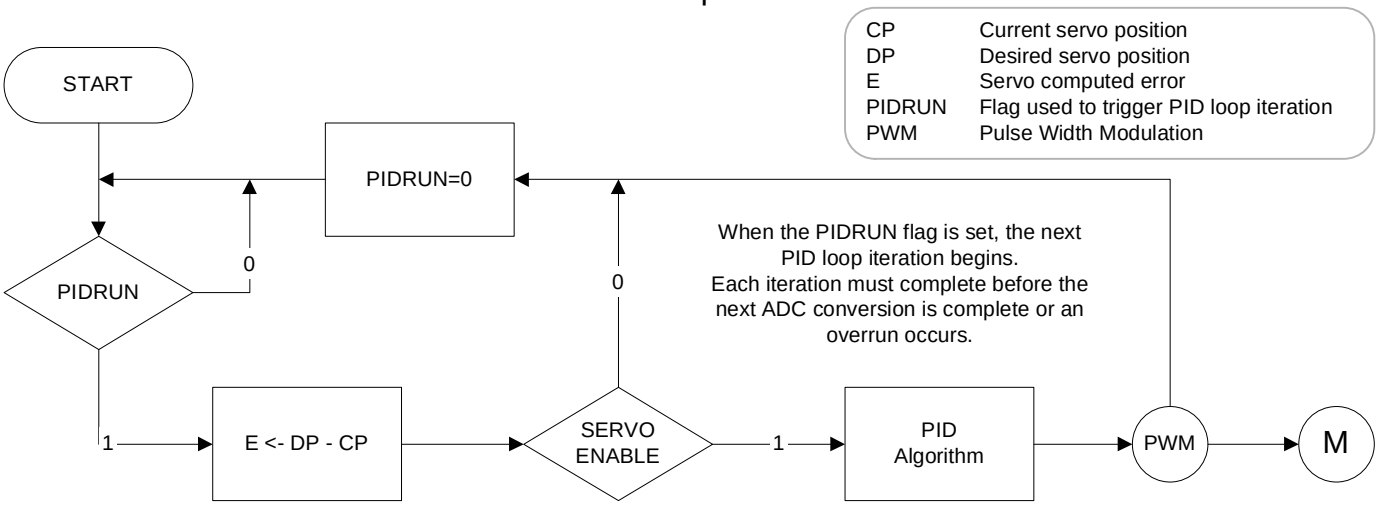


The Sample Clock starts a new ADC conversion every N cycles as determined by the CLOCK register. This clock will determine the number of PID loop iterations/ sec, known as the controller's bandwidth. The ADC causes an interrupt when the conversion is completed.

When ADC conversion is completed, the conversion value is stored in register CP, the servo's current position as read from the servo potentiometer.
However, If the previous PID loop is still running an overrun error is generated and this iteration is aborted. If enabled, the sample clock is increased to prevent further overruns (auto bandwidth).

I2C Events are delegated to the I2C implementation handlers. See the SuperServo I2C documentation.

PID Loop ∇∇∇



PID Algorithm ∇∇∇