FAQ

YASKAWA

Title: How is torque feed forward implemented on an MPiec controller?

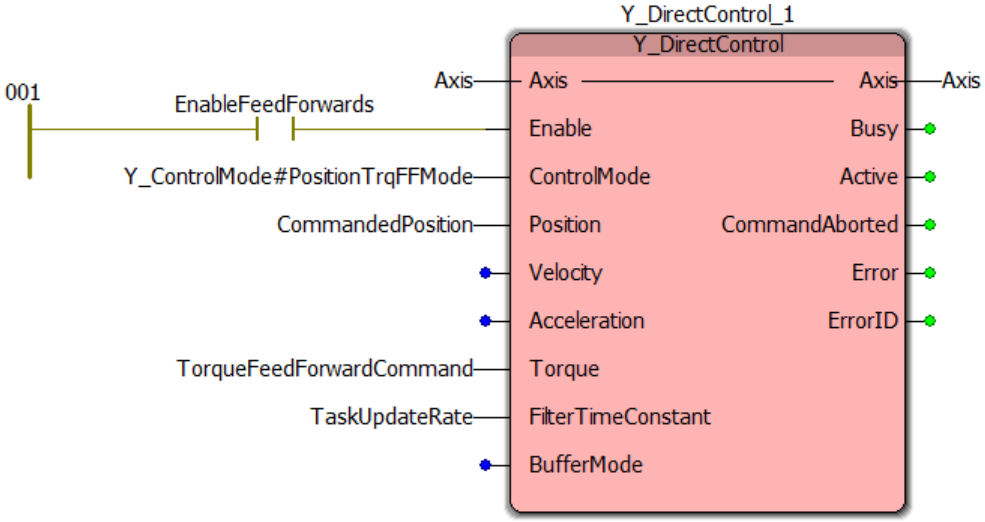
Product(s): MP3200iec, MP2300iec, MP2600iec, MP3300iec, MotionWorks IEC	**Doc. No.** CNT-SRV-M30MS7

It is important to note that MotionWorksIEC v3.0 (or newer) must be used with a MPiec series controller running firmware 3.0.3 (or newer).

The first step is to set the necessary parameters in the drive to accept the torque feed forward command. The table below lists all of the required parameter settings as well as a few suggested settings.

Required	Parameter Number	Parameter Setting
Y	Pn81F	xx11
Y	Pn002	xx12
N	Pn109	100 (100%)
N	Pn10A	Mechatrolink update period
N	Pn140.0	0 (model following off)
N	Pn812	Mechatrolink update period
N	1310	FALSE
N	1311	2

Once these parameters are set, use the Y_DirectControl function block in mode 4. In mode 4, the servo will be given a position command via the Position input and will use the Torque input as the torque feed forward command. If the Torque input is left at zero, the servo will accept the position command and use the servo loop gains to attain positioning.



(Note: with a tightly tuned servo, if the torque feed forward leads to a large position error the servo loop gains will take control and ignore the torque feed forward input to maintain position control)