FAQ

YASKAWA

Title: Setting the Minimum Task Interval on a MPiec Controller

Product(s): MP3000iec Series Controllers, MotionWorks IEC 3	**Doc. No.** AN.MPIEC.25

Overview

When users try to add or modify a CYCLIC task interval to a value faster than the Mechatrolink-III communication cycle, the result will be the error shown below:
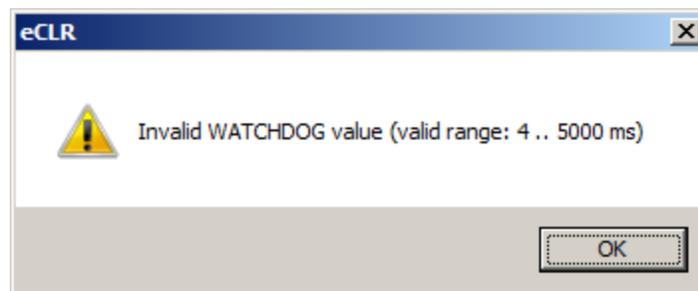

Figure 1: eCLR error for invalid watchdog value.

The Mechatrolink Communication Cycle is the fastest interval that a PLC CYCLIC task can execute. In the example below, the Mechatrolink-III communication cycle is set to 4 mSec, the Fast Task setting of any multiple of 4 mSec is allowed.
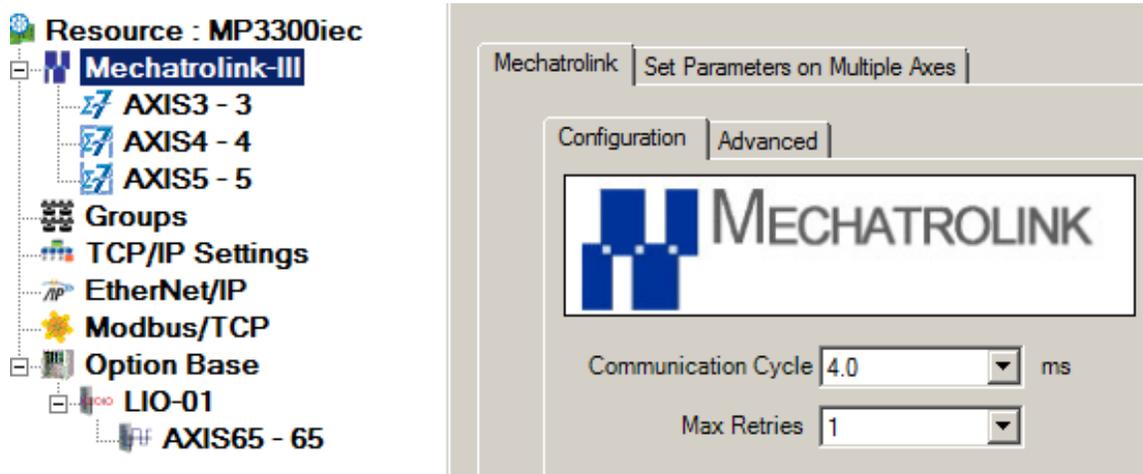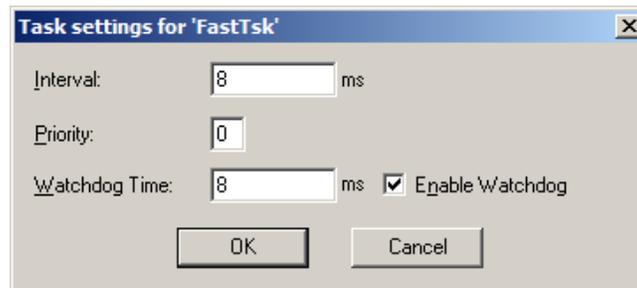

Figure 2: Mechatrolink-III update rate

Title: Setting the Minimum Task Interval on a MPiec Controller	
Product(s): MP3000iec Series Controllers, MotionWorks IEC 3	**Doc. No.** AN.MPIEC.25

Figure 3: Fast task initial setting.

Figure 4: Fast task setting changed.

However, the Fast task **CANNOT** be set to 2 msec, since this is faster than the Mechatrolink-III communication cycle.

Figure 5: Fast task setting of 2 msec.

Title: Setting the Minimum Task Interval on a MPiec Controller

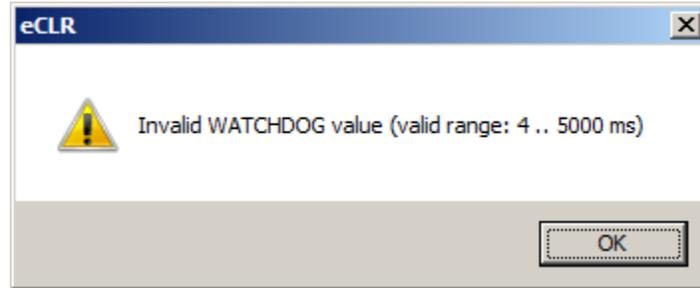**Product(s):** MP3000iec Series Controllers, MotionWorks IEC 3 | **Doc. No.** AN.MPIEC.25

Figure 6: eCLR error for invalid watchdog value.

Table 1: Allowable settings.

Mechatrolink-III Setting	User Task Setting	Result
4	8	✔
4	4	✔
4	2	✘

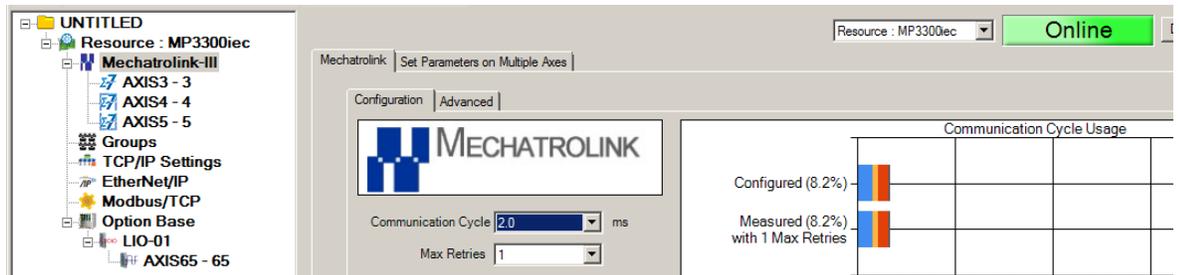**Title: Setting the Minimum Task Interval on a MPiec Controller**

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Implementation

Assuming it is necessary for the application to operate at a faster update interval and the MPiec has sufficient CPU capability to operate all the axes on the system at a faster interval, use the following steps to remedy the Minimum Task Interval error:
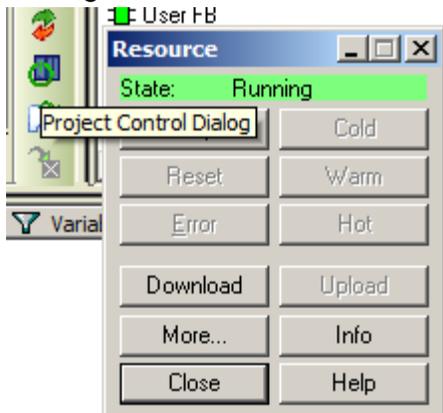
1. Open Hardware Configuration and go online with the MPiec Controller.
2. Change the Mechatrolink-III update rate (Example: 2 msec.)
   -
3. Save.
   -
4. Reboot the MPiec controller.
5. In MotionWorks IEC 3 Pro, connect to the controller by clicking on the Project Control Dialog
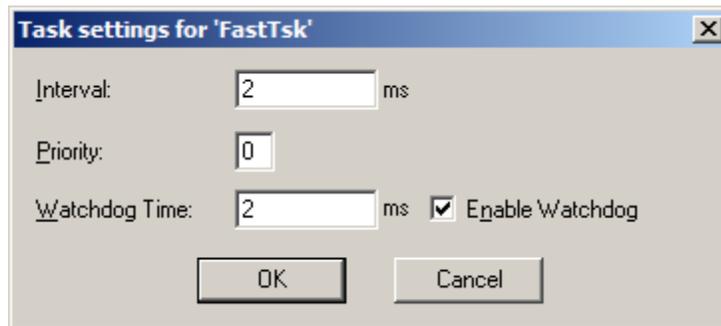   -
6. Now change the FastTsk interval and watchdog time.
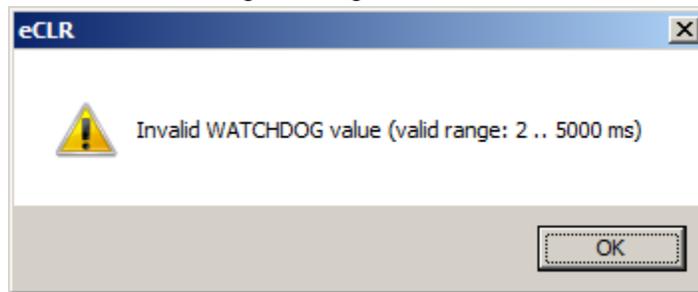   - Example: 2 msec.

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7. Repeat step 6 by verifying the new minimum task interval by typing in '1' mSec.

- Notice the message changes to the minimum task number.

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Key Note: Opening the "Project Control Dialog" updates the minimum task interval setting to the Mechatrolink Communication cycle.

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