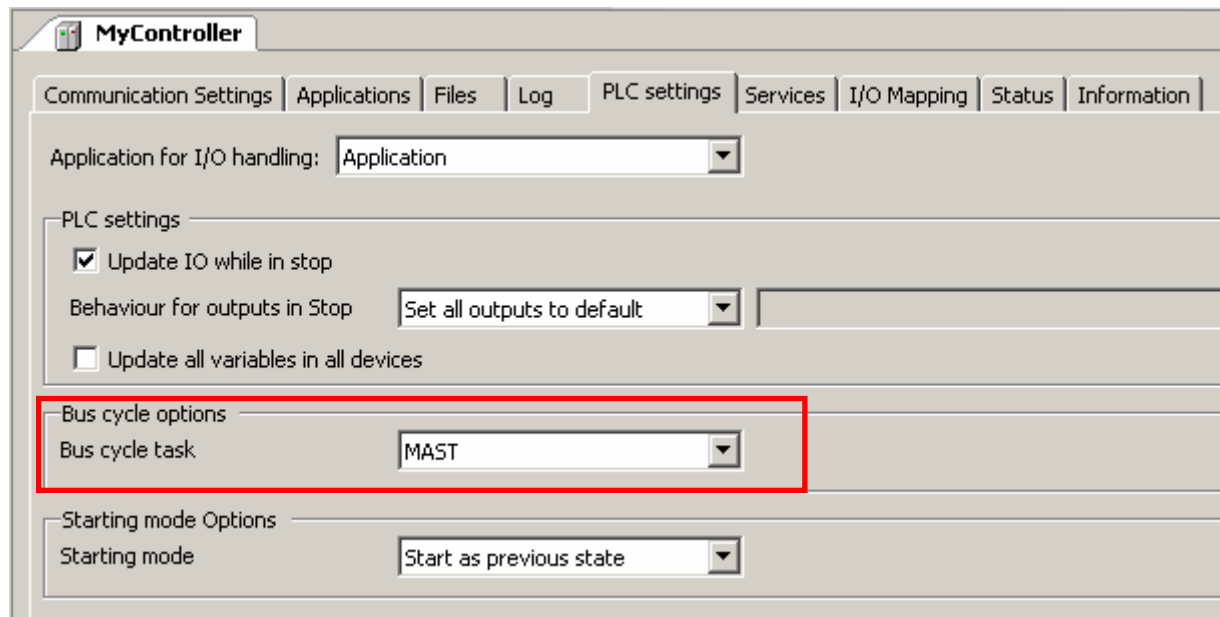
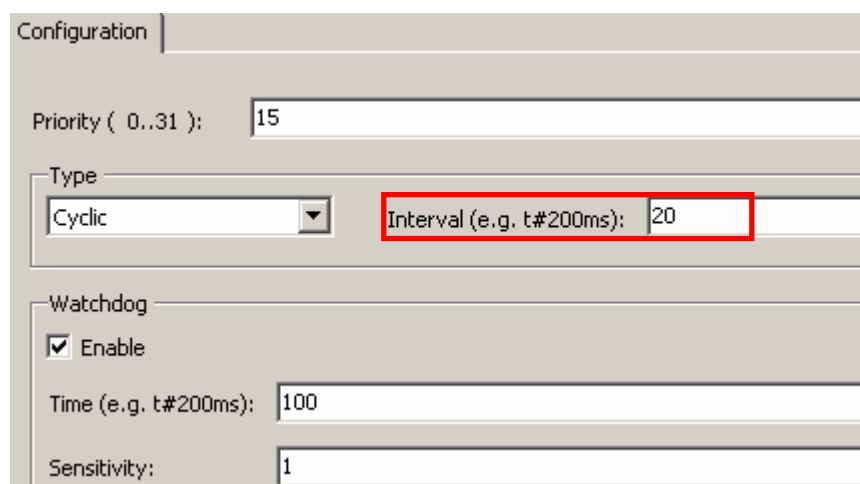


Global setting for relationship between bus cycles and tasks is done in PLC settings (parent setting):



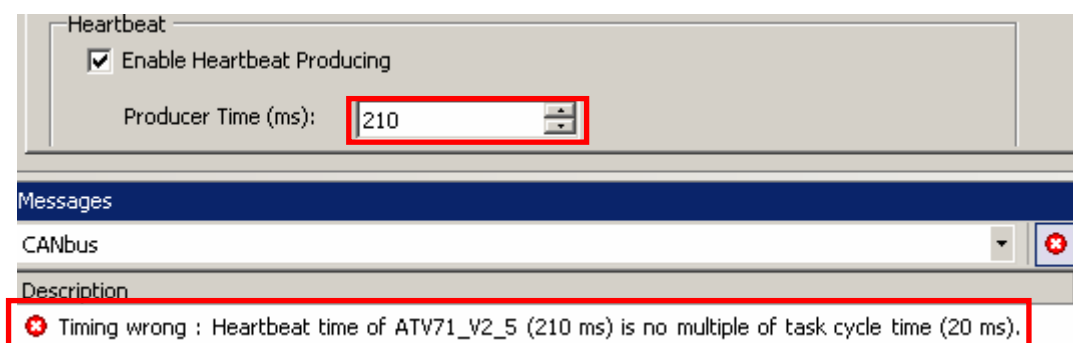
The screenshot shows the 'MyController' software interface. The 'PLC settings' tab is selected. Under 'PLC settings', the 'Bus cycle options' section is highlighted with a red rectangle. It contains a 'Bus cycle task' dropdown menu set to 'MAST'. Other settings include 'Update IO while in stop' (checked), 'Behaviour for outputs in Stop' (Set all outputs to default), 'Update all variables in all devices' (unchecked), and 'Starting mode' (Start as previous state).

MAST task configuration:



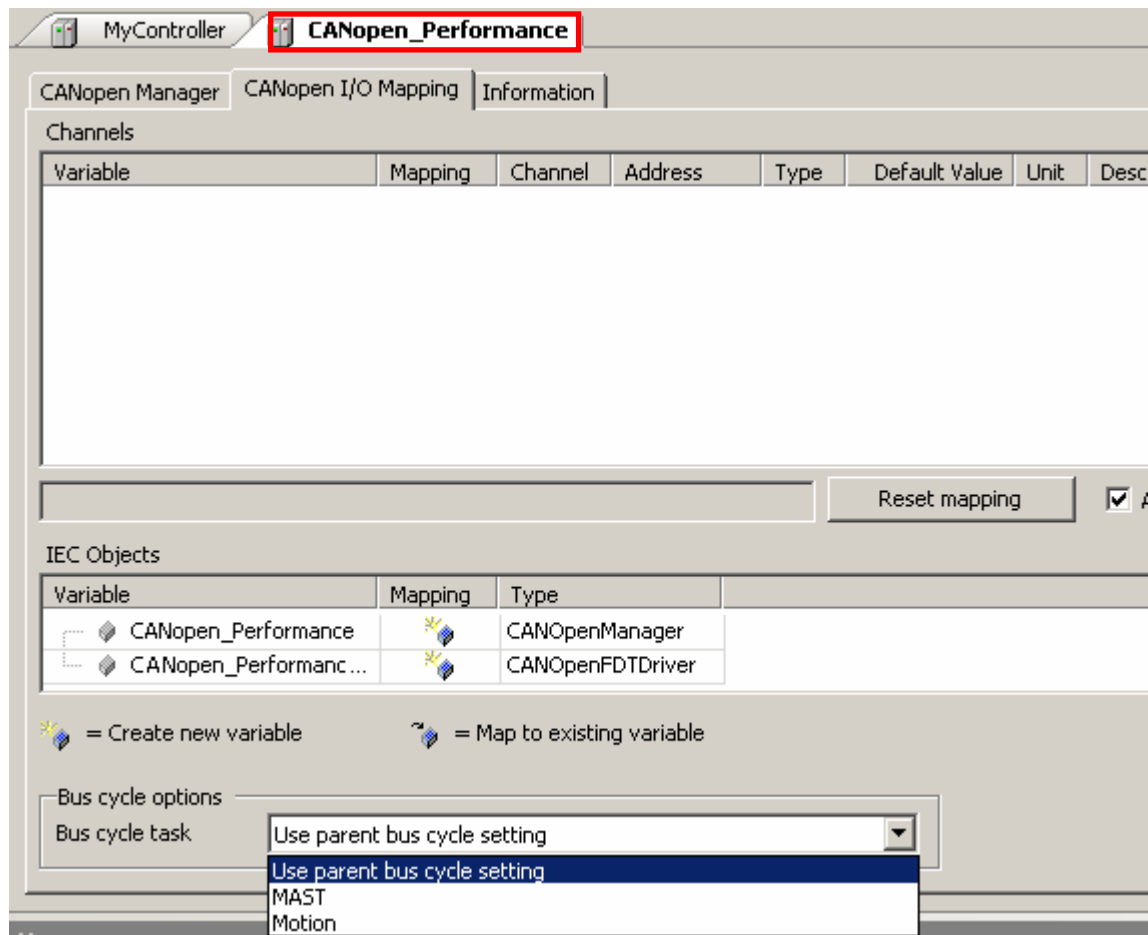
The screenshot shows the 'Configuration' window for the MAST task. The 'Type' is set to 'Cyclic'. The 'Interval (e.g. t#200ms)' is set to '20', which is highlighted with a red rectangle. The 'Watchdog' section is also visible, with 'Enable' checked, 'Time (e.g. t#200ms)' set to '100', and 'Sensitivity' set to '1'.

Interval of task cycles is used to generate interrupts, syncs, heartbeats,...
That why the heartbeat must be a multiple of the linked task interval:

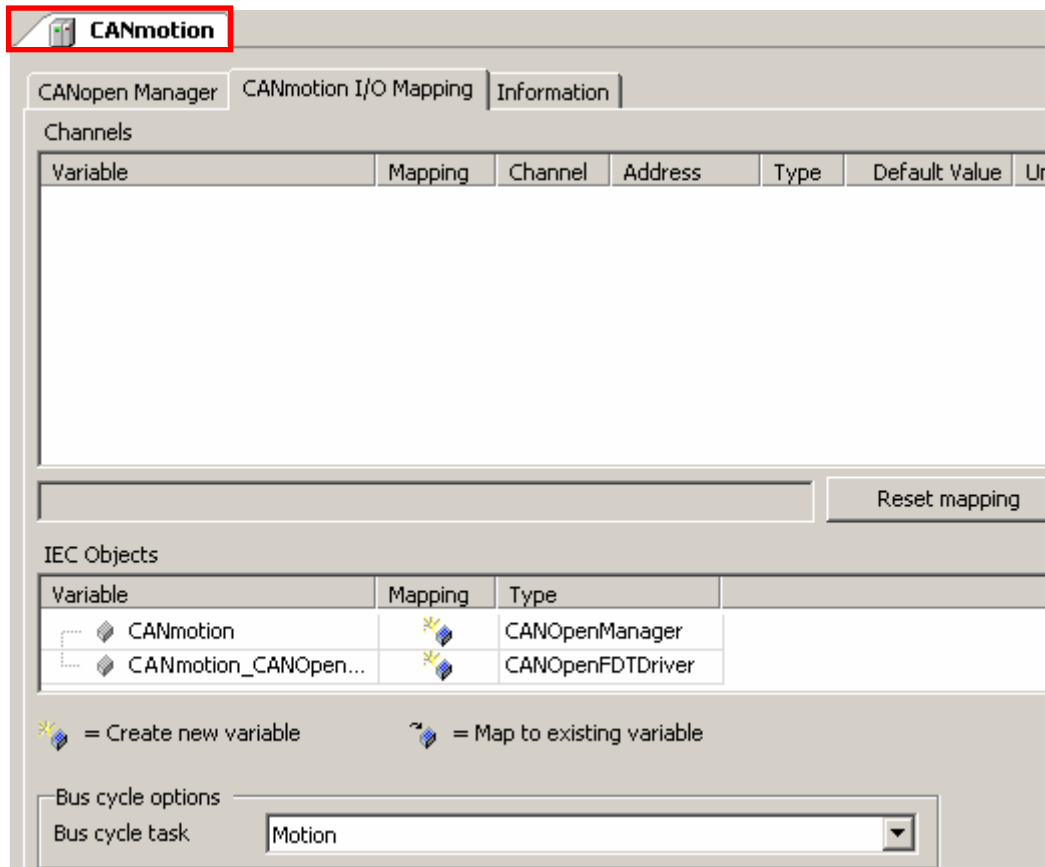


The screenshot shows the 'Heartbeat' configuration window. The 'Enable Heartbeat Producing' checkbox is checked. The 'Producer Time (ms)' is set to '210', which is highlighted with a red rectangle. Below this, the 'Messages' window shows a red error message: 'Timing wrong : Heartbeat time of ATV71_V2_5 (210 ms) is no multiple of task cycle time (20 ms)'.

Each bus can be (must be) configured individually:



- Use parent bus cycle settings => CANOpen_Performance is linked to the setting of the MAST task (because of the setting in PLC settings)
- MAST => CANOpen_Performance is linked to the setting of the MAST task independent from setting in PLC settings (**recommended setting**)
- Motion => CANOpen_Performance is linked to the setting of the motion task independent from setting in PLC settings (**not recommended setting**)



- **CANmotion must be linked to Motion task because the CAN1_sync which triggers the motion task, synchronizes the motion bus**

If the setting for the parent (PLC settings) is empty => <unspecified>, the system tries to link the fastest available task to all buses which are configured as *Use parent bus cycle settings* -> not recommended