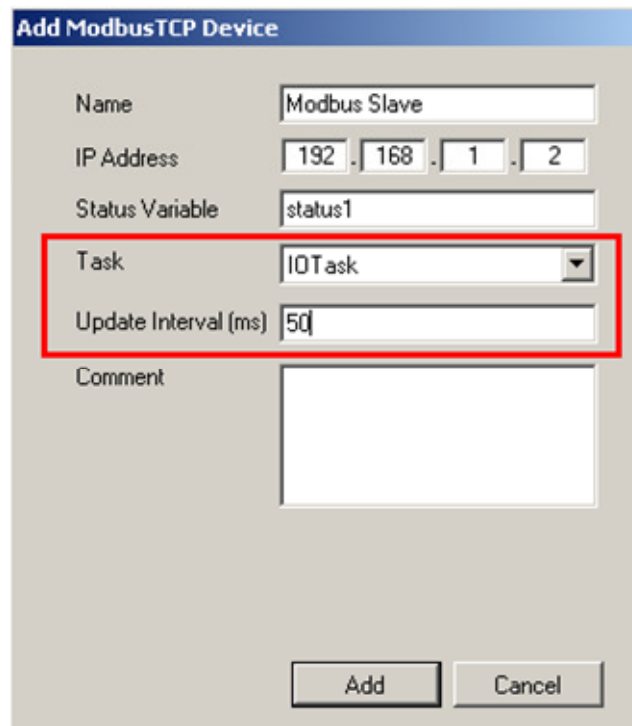


When a Modbus/TCP server (slave) device is added to the client configuration of the MPiEc controller(MPiEc acting as the Modbus/TCP Master), the device needs to be assigned to a task and an update interval (poll period) has to be specified for that server device (as shown in figure below).



The screenshot shows a dialog box titled "Add ModbusTCP Device". It contains the following fields and values:

- Name: Modbus Slave
- IP Address: 192 . 168 . 1 . 2
- Status Variable: status1
- Task: IOTask (highlighted with a red box)
- Update Interval (ms): 50 (highlighted with a red box)
- Comment: (empty text area)

At the bottom of the dialog are two buttons: "Add" and "Cancel".

Figure 1: Setting up server (slave) device

Update interval and task update are independent of each other. The difference between the two updates is shown in Figure 2.

The **update interval** is the rate at which the Modbus/TCP client driver in the MPiEc queries the server (asks the server for data). One Modbus/TCP data block (function code) is executed in one update interval. The same data block will be executed (Update Interval x # of data blocks) ms later.

The **interval of the task** to which that particular device is mapped during configuration will determine the rate at which the variable is refreshed from the Modbus/TCP memory to the application memory. This will determine how soon a variable is available for use in the application project once it is in the Modbus/TCP memory area of the controller.

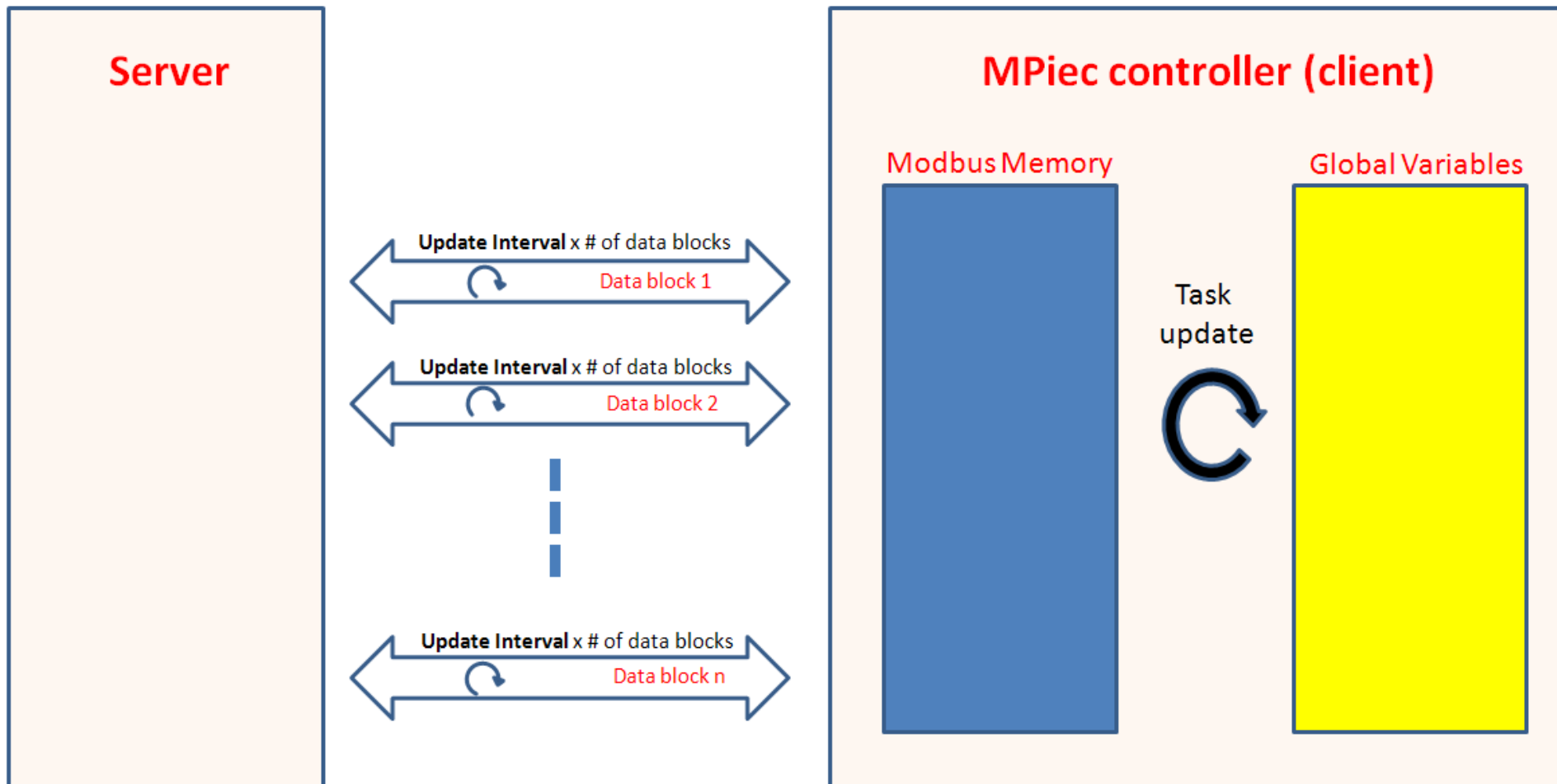


Figure 2: Difference between Task update and Update Interval for Modbus/TCP applications

This task interval for a task is set in the hardware tab in the project tree window under settings as shown in the figure below.

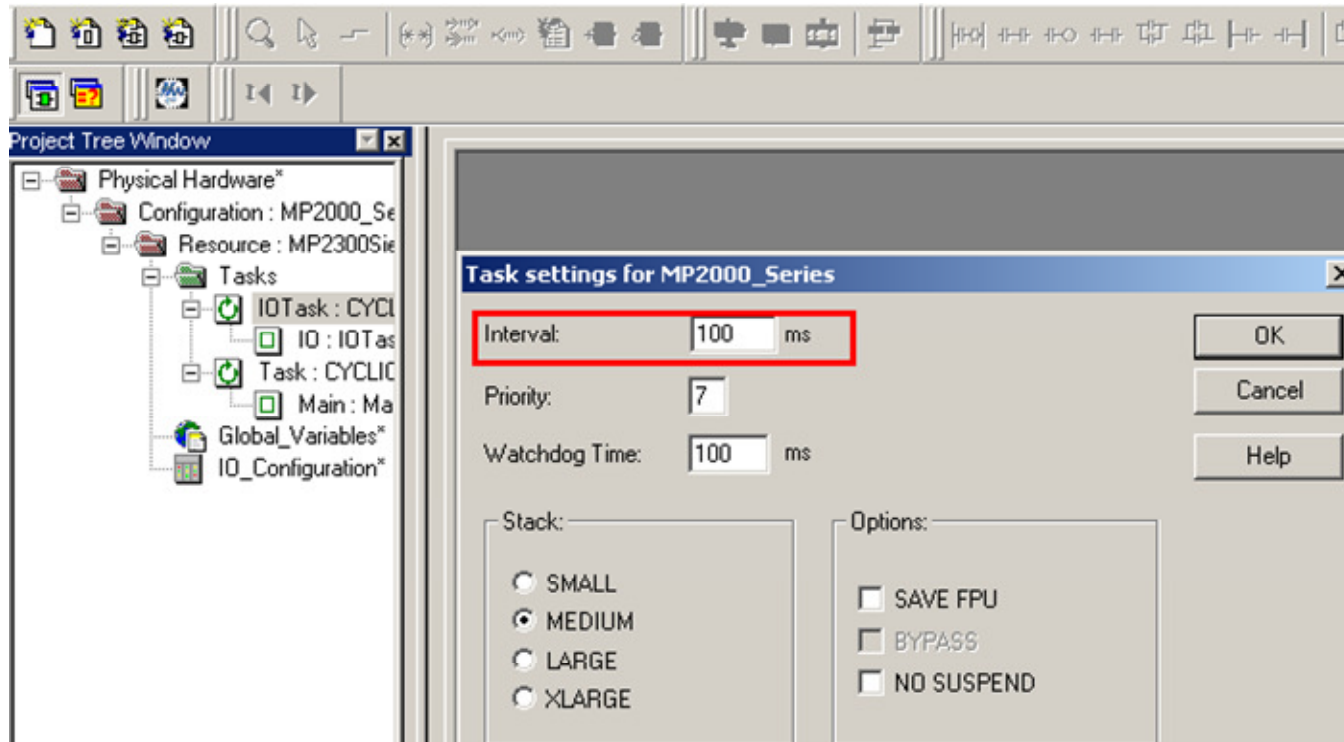


Figure 3: Task update setting

In the example shown, with the configuration as shown in Figure 1, one Modbus/TCP function code (such as Read Registers) will be executed every 50 ms and the results will be stored into a memory buffer. Every 100 ms data will be moved from the Modbus/TCP memory buffer into the application variable space to be used by the application code.