

Mercury System

Slaves Generic Command Set

IoT and Connectivity Made Simple

Francesco Ficili
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Revision Log				
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1. Introduction

This manual provides a description of the Mercury System Slaves Generic Command Set.

2. Mercury System Slave Board

In order to develop applications, the Mercury System provides several different Slave Boards, each of them containing a specific peripheral (could be a particular sensor, an actuator, a communication device, etc.), managed by a local controller.

Each of these Slaves Devices implement a specific command set, used to virtualize the access to the specific sensor or actuator. This command set change from device to device and is strictly connected with the slave FW version (each FW version implements a specific set of Specific Commands or Services).

Apart from the specific command set, there is a second set of commands implemented by each Slave (SB or EB equipped with a local controller) in the same way, the so-called “Generic Command Set”. These are basic services that must be implemented by each slave and are strictly connected with the Slave Framework version used (each framework version implements a specific set of Generic Commands or Services).

3. Slaves Generic Command Set

The following list of Generic Commands refers to the following Slaves Framework Version: **1.1.00**

Code	Cmd Name	Parameters	Description
0x10	Ping Cmd	None	Make a ping request to the addressed slave. The addressed slave prepares an “ECHO” string in response to this command (must be read with an appropriate read request if on I2C bus). Used to verify that the slave is present on the network.
0x20	Request Board ID Cmd	None	Request the Board ID (or name) string. The addressed slave prepares a 5 byte ID string in response to this command (must be read with an appropriate read request if on I2C bus).
0x21	Request Fwk Version Cmd	None	Request the Board Framework Version string. The addressed slave prepares an 8 byte Fwk Version string in response to this command (must be read with an appropriate read request if on I2C bus).
0x22	Request App Version Cmd	None	Request the Board Application Version string. The addressed slave prepares an 8 byte App Version string in response to this command (must be read with an appropriate read request if on I2C bus).
0x30	Board Reset	None	Request and hard reset to the board. After the reception to this command the addressed slaves immediately execute a SW reset.
0x31	Board LP Mode	None	Request the addressed slave to switch to low-power mode. The addressed slave can be woke-up with any other message. If the user wants to put the entire network in sleep, then the general call broadcasting scheme (address 0x00) could be used.
0x41	Control LED Behav.	LED Behav. (1 byte)	Set the board LED behavior: 0 = always off 1 = I2C Rx pulse (default) 2 = LED automatic blink 3 = Master direct control The option 3 (master direct control) is implemented via service 0x42.
0x42	Control LED Direct	LED Sts (1 byte)	Control the user LED directly (0 = OFF; 1 = ON).
0x45	Request Die Temp Raw	None	This command requests the preparation of the DIE temperature ADC reading data in binary

			format, without any conversion in temperature scale.
0x46	Request Die Temp ASCII	None	This command requests the preparation of the DIE temperature data in ASCII format. The board will prepare 2byte of data containing the DIE temperature value in ASCII format, in Celsius scale.