Power up Default Setting in Camera EEPROM

EEPROM setting

The GP series camera contains an EEPROM for internal use. However, the EEPROM has some extra capacity to save a few power up defaults in case the XML file or Coyote application cannot be used for the default settings.

Here are commands for writing into the EEPROM.

Register address to boot up at power up default:

	ADDRESS	DATA
Factory Default	57 A0 05	00 00 00 00
User 1 Configuration	57 A0 05	00 00 00 01
User 2 Configuration	57 A0 05	00 00 00 02

To save the parameters into I2C-EEPROM:

User 1	57 FF FE	00 00 00 01
User 2	57 FF FE	00 00 00 02

Typical factory setting is “User 1 configuration” default for next power up. Therefore, at factory, the original factory default is set to mode of “User 1”
In other words, when customer receives a camera, it has factory default parameters installed and boots up with those first. Then if the customer needs to change some of the settings, he can type “57 FF FE 00 00 00 01” to save the new power up default.

If a customer needs two settings, the second one can be saved as “57 FF FE 00 00 00 02”. For next power up, they can select user 1 or user 2 can be chosen by selecting the boot up data. If user 2 is chosen, then the boot up should be “57 A0 05 00 00 00 02”.

In case the original factory default must be recalled, enter “57 FF FF 00 00 00 00”.

Parameters can be saved in EEPROM:

Since space in the EEPROM is limited, only the following parameters can be saved.

Mode setting “57 00 23 00 00 00 XX”

XX:		
	00	Normal mode, no trigger
	01	Async trigger mode
	02	Pulse width control mode
	03	Back-to-back strobe mode
	04	ITS mode (multiple frame per trigger)
	10	Partial scan normal mode
	11	Partial scan Async trigger mode
	12	Partial scan pulse width control
	14	Partial scan ITS mode

Exposure “57 00 24 00 00 00 YY”
YY: Exposure data 00 to FF

Gain setting “57 00 10 00 00 00 ZZ”
ZZ: Gain value from 00 to FF

Other parameters set at power up:

Besides customer-set power-up default, other parameters are also preset and stored in EEPROM. They are;

Factory default gain:	57 A0 00 00 00 00 <u>50</u>
Factory default black level:	57 A0 02 00 00 00 <u>48</u>
Factory default pixel depth:	57 A0 03 00 00 00 <u>02</u>
00	12-bit
01	10-bit
02	8-bit Linear
03	8-bit Gamma (0.45)
12	Test pattern
20	16-bit (MSB 12-bit)

These underlined values are rewritable for customer’s default.