iPano RS232 Command Set

(July 2015)

Instruction Format

Start	Source	Client	Instruction	Data	End
1	1	1	3	0 ~ 33	1

Start Character: 1 digit (":")
Source machine code: 1 digit (0 ~ 8, 0: PC End, 1: Center iPano, 2:Wi-Fi End）
Client Unit: 1 digit (0 ~ 9, 0: PC End, 1: iPano, 2: Wi-Fi End, 9: broadcasting）
Instruction: 3 digit (if it is less than 3 character, followed by spaces）
Data : 0 ~ 33 digit
End Character: 1 digit ("#")

RS-232 Port Settings

Baud Rate: 115200
Parity: none
Data bits: 8
Flow Control: none (does not support Xon/Xoff or hardware flow control)
Start Bits: 1
Stop Bits: 1

Mount Firmware and Type

Description: Get Firmware and Data Structure Version
Command: ":01FW0#"
Return: ":10FW0YYMMDDYYMMDD#"
First "YYMMDD" is firmware version, second is data structure version.

Description: Get Mount Type
Command: ":01INF#"
Return: ":10INFxxxx#"
xxxx: mount part number (3600: AllView Pro)

Mount Motion

Description: Move Mount
Command: ":01mvu#", ":01mvd#", ":01mvl#", ":01mvr#"
Return: none

Mount will start moving in specified direction after receive the instruction until a stop command is received.

mvu: moving upward,
mvd: moving downward,
mvl: moving left,
mvr: moving right

Description: Stop Moving in All Directions
Command: ":01mqq#"
Return: ":10mqq1#"

Stop moving in all directions.

Description: Stop Panning (azimuth) Motion
Command: ":01qAZ#"
Return: ":10qAZ1#"

The mount will stop moving along azimuth direction.

Description: Stop Tilting (altitude) Motion
Command: ":01qAL#"
Return: ":10qAL1#"

The mount will stop moving along altitude direction.

Description: GOTO
Command: ":01SSLnTTTTTZZZZZ#"
Return: ":10SSL1#"

n: sign, "+" or "-"
TTTTT: altitude angle -18000~+18000 (X0.01 degree)
ZZZZZ: azimuth angle 0~36000 (X0.01 degree)

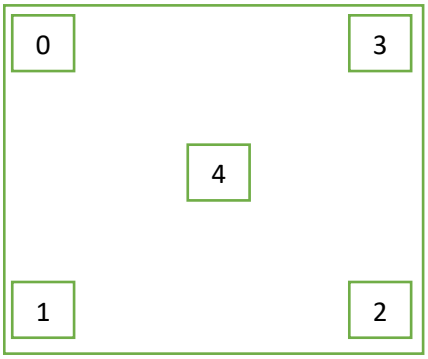
Mount Set and Operation

Description: Shutter Test
Command: ":01SHT#"
Return: ":10SHT1#"
Test the camera shutter once based on pre-set parameters.

Description: Zero Position
Command: ":01SPZx#"
Return: ":10SPZ1#"
x: "0" return to Zero Position; "1" Set Zero Position.

Description: Set Reference Point
Command: ":01SOPx#"
Return: ":10SOP1#"
x: "0" reference point 0; "1" reference point 2.

Description: Start Panorama
Command: ":01SPAtd#"
Return: ":10SPA1#"
t: "0" preview;
"1" matrix panorama;
"2" 360 panorama;
"3" time lapse.
d: when previewing (t=0), d= 0~4 refer to one of 5 preview points;
when taking photos (t=1,2 or3), d=0~7 referring to one of 8 imaging paths.



Description: Set Time-lapse Parameters
Command: ":01STLx[±]nnn[nn]#"
Return: ":10STL1#"
x: "0" set total photo number; "nnnnn" (5 digit) 1 ~ 99999 total photos
"1" set interval angle; [±]nnn (4 digit) -900 ~ +900 (X0.1 degree)

Description: Get azimuth/altitude Step Parameters

Command: ":01GTL#"
Return: ":10GTL±AAAAA±LLLLL#"

±AAAAA azimuth angle, 6 digit: -36000 ~ +36000 (X0.01 degree)
±LLLLL altitude angle, 6 digit: -36000 ~ +36000 (X0.01 degree)

Description: Set Timing Parameters
Command: ":01STTxnnnnnnn#"
Return: ":10STT1#"

x:	"0" set delayed start	nnnnnnn: 1 ~ 0086400 seconds
	"1" set time interval	nnnnnnn: 1 ~ 8629999 seconds
	"2" set time interval for time-lapse imaging	nnnnnnn: 1 ~ 8629999 seconds

Description: Get Timing Parameters
Command: ":01GTTx#"
Return: ":10GTTnnnnnnn#"

x:	"0" get delayed start	nnnnnnn: 1 ~ 0086400 seconds
	"1" get time interval	nnnnnnn: 1 ~ 8629999 seconds
	"2" get time interval for time-lapse imaging	nnnnnnn: 1 ~ 8629999 seconds

Description: Shooting Control
Command: ":01SPCx#"
Return: ":10SPC1#"

x: "0" exit
"1" pause
"2" resuming
"3" software triggering (while waiting for trigger)
"4" previous photo position (while paused)
"5" next photo position (while paused)

Description: iPano Status
Command: ":01GAS#"
Return: ":10GASnTTTTTZZZZZx#"

n: sign, "+" or "-"
TTTTT: altitude angle -18000~+18000 (X0.01 degree)
ZZZZZ: azimuth angle 0~36000 (X0.01 degree)
x: "0" stop;
"1" move;
"2" waiting for triggering;
"3" delaying according to timer;
"4" paused;
"5" shooting

Description: Set FOV (Field of View)
Command: ":01SFVnnnn#"
Return: ":10SFV1#"
nnnn: FOV 0~1800 (x0.1 degree)

Description: Get FOV (Field of View)
Command: ":01GFV#"
Return: ":10GFVnnnn#"
nnnn: FOV 0~1800 (x0.1 degree)

Description: Repeat Most Recent Project
Command: ":01SRE#"
Return: ":10SRE1#"
Repeat the most recent panorama project.

Description: Check Most Recent Project
Command: ":01GRE#"
Return: ":10GREn#"
Check the most recent panorama project.
"0" none;
"1" matrix panorama;
"2" 360 panorama;
"3" time lapse

Description: Get Shooting Prgress
Command: ":01GPG#"
Return: ":10GPGxxxxxmmmmm#"
xxxxx: number of photos already taken (1~99999)
mmmmm: total number of photos

Description: Battery Status
Command: ":01GPW#"
Return: ":10GPWxxx#"
xxx: Remaining battery percentage (0 ~ 100)