

Panasonic Camera Control Protocol

Recommended Protocol for cross control

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1. Scope of this document

This document is excerpt from total Panasonic camera control protocol document and recommended protocol for cross control between Pelco and Panasonic equipment since total protocol document contains extensive protocols and protocols for older generation cameras which may not be used for cross control.

This document and protocol are applicable for following PTZ camera models only. Older generation camera does not work with the protocol in this document.

Generation	PTZ Camera model(US)
4G	WVCS954
	WVCW964
3G	WVCS574
	WVCW864A
	WVCS854B
	WVCW864
	WVCS564
	WVCS854A

1. PTZ commands

1.1 Command structure

STX G C 7 : D T T X X X X ETX

D : ONE Way 256 steps Command

T T : Command type, 02:PTZ command, 03:Focus command, Preset command etc

X X X X X X : Command body, Refer Fig 1.1

Fig1.1 PTZ Command body structure

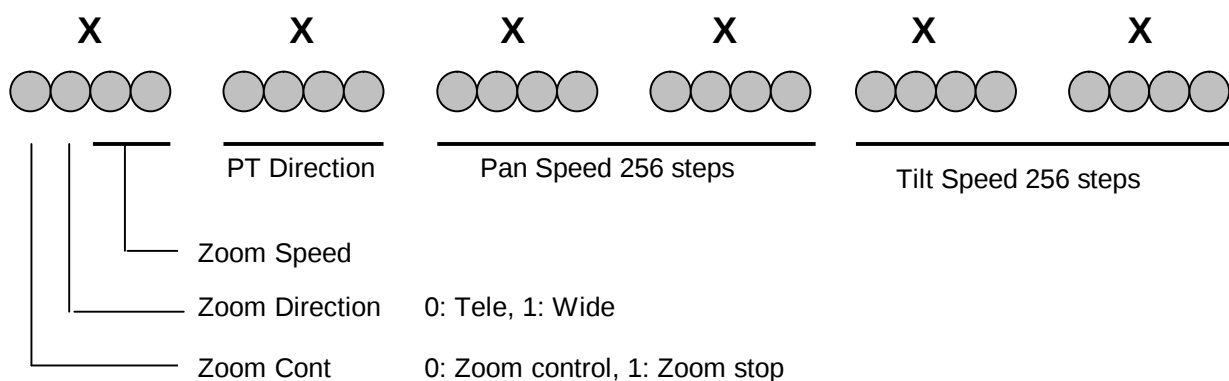


Table 1.1.1 PTZ Speed

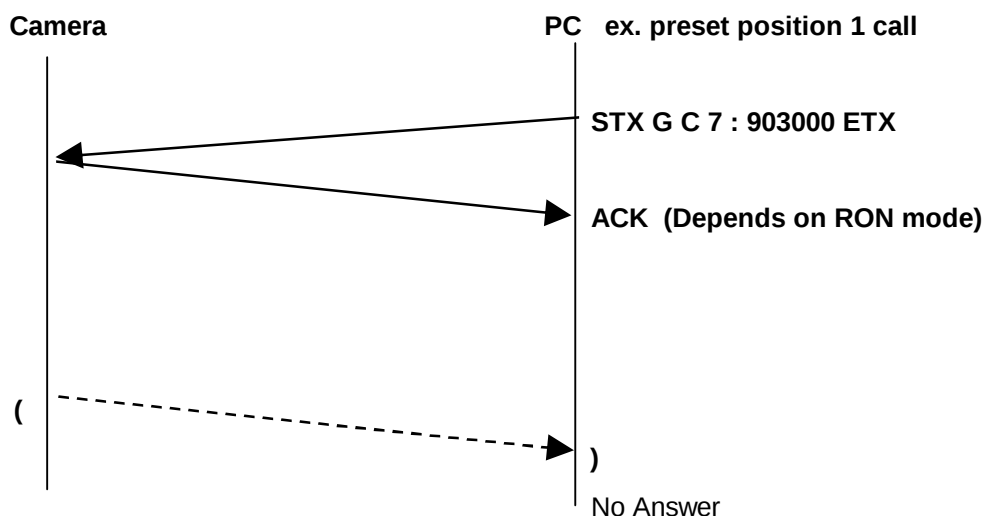
Pan Speed 256steps	(min) 00, 01, 02.....FE, FF(max)
Tilt Speed 256 steps	(min) 00, 01, 02.....FE, FF(max)
Zoom Speed 4 steps	(min) 0, 1, 2, 3 (max)

Table 1.1.2 PT directions

Command	Function
0	Null (when used only fo zoom)
1	STOP
8	Left
9	Left + UP
A	UP
B	Right + UP
C	Right
D	Right + Down
E	Down
F	Left + Down

1.2 Command Answer

This protocol does not use answer from camera



1.3 RON mode

Panasonic RS485 communication utilizes ACK and ANSWER codes. When PC sends a command, the camera sends back an ACK and an ANSWER codes. If the ACK and ANSWER codes are not preferable, these codes can be omitted.

RON:7 mode is recommended in 2 wire connection.

Communication Configuration Commands

Command	Answer
STX R O N : [code] ETX	STX R O N : 0 ETX Refer table 1.3.1

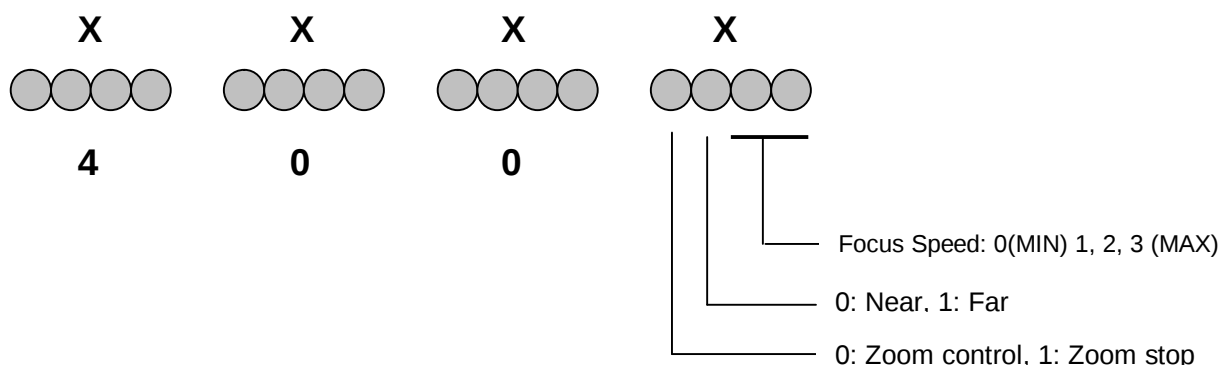
Table 1.3.1

Code	ACK *3	ANSWER	Error Code *2
0	Yes	Yes *1	Yes
1	Yes	Yes *1	Yes
2	Yes	No	Yes
3	Yes	No	No
4	No	Yes *1	Yes
5	No	Yes *1	No
6	No	No	Yes
7	No	No	No

***1 Exception : GC7:Dxxxxxx command is always no answer.**

1.4 Focus Command

Fig1.3 Focus Command body structure



2. Camera Function Command

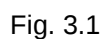
Other than camera PTZ command, recommended function commands are as follows.

No	Function	Command	Remark
1	IRIS(CAMERA) OPEN	0021002	Timeout 2.2sec
2	IRIS(CAMERA) CLOSE	0021003	Timeout 2.2sec
3	IRIS(CAMERA) STOP	0021004	
4	IRIS(CAMERA) RESET	0021005	
5	BW ON	0021040	
6	BW OFF	0021041	
7	BW AUTO	0021042	
8	ALL RESET	0021760	No need to set the menu cursor.
9	Restart	0021761	Equivalent to power OFF-ON.
10	SETUP MENU ON	0021940	
11	SETUP MENU OFF	0021941	
12	SETUP MENU [Cursor STOP]	002194F	
13	SETUP MENU [Cursor UP]	0021942	
14	SETUP MENU [Cursor Right]	0021943	
15	SETUP MENU [Cursor Down]	0021944	
16	SETUP MENU [Cursor Left]	0021945	
17	SETUP MENU SET1	002194A	
18	SETUP MENU SET2	002194B	Equivalent to pressing set button for 2 seconds.
19	Left+Right button pressed (F2).	002194C	For Special menu, Gain reset etc. Need to set the setup menu cursor.
20	Left+Centre+Right button pressed (F3).	002194D	For Camera reset. Need to set the setup menu cursor
21	Digital Flip ON	00219A0	
22	Digital Flip OFF	00219A1	

23	ONE SHOT AUTO FOCUS ON	0021A06	
24	AUX 1 ON	2021160	Depends on MENU :CONT 1 AUX1
25	AUX 1 OFF	2021161	Depends on MENU :CONT 1 AUX1
26	AUX 2 ON	2021162	Depends on MENU :CONT 2 AUX2
27	AUX 2 OFF	2021163	Depends on MENU :CONT 2 AUX2
28	AUTO PAN ON	2021300	
29	AUTO PAN OFF	2021301	
30	AUTO PAN REVERSE	2021305	
31	AUTO PAN LEFT END SET	2021306	
32	AUTO PAN RIGHT END SET	2021307	
33	PRESET 1 CALL	9030000	
34	PRESET 2 CALL	9030001	
35	~	~	
36	PRESET 63 CALL	903003E	
37	PRESET 64 CALL	903003F	
38	PRESET1 SET	9030064	
39	PRESET2 SET	9030065	
40	~	~	
41	PRESET63 SET	90300A2	
42	PRESET64 SET	90300A3	
43	HOME POSITION CALL	2021410	
44	PRESET MODE [SEQ ON]	2021437	
45	PRESET MODE [SORT ON]	2021438	
46	PATROL PLAY	2021490	
47	PATROL STOP	2021491	
48	PATROL LEARN	2021494	

3.1 2Wire Internal Circuit

3.1 2Wire Internal Circuit



3.2 4Wire Internal Circuit

