

From
ST-VS/MKIOur Reference
Christian Spitzner

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Nürnberg
06 June 2016**Technical information**Topic **BICOM PTZ Integration package**

1 Overview

This collection of selected BICOM commands gives a quick help for PTZ integration.

1.1 Continuous Move

Turn left where x is the speed (15 speeds possible from 0x1-0xF)

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x8000060110850X0000
```

Example:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x8000060110850F0000
```

Turn right where x is the speed (15 speeds possible from 0x1-0xF)

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x8000060110858X0000
```

Example:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x8000060110858F0000
```

Go up where x is the speed (15 speeds possible from 0x1-0xF)

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x800006011085008X00
```

Example:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x800006011085008F00
```

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Go down **where x is the speed** (15 speeds possible from 0x1-0xF)

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x800006011085000X00
```

Example:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x800006011085000F00
```

Zoom out **where x is the speed** (7 speeds possible from 0x1-0x7)

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x80000601108500000X
```

Example:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x800006011085000007
```

Zoom in **where x is the speed** (7 speeds possible from 0x1-0x7)

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x800006011085000008X
```

Example:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x8000060110850000087
```

Stop command for Pan, Tilt and Zoom

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x8000060110850000000
```

1.2 Prepositions

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Set preposX where x is the present number (99 Presets possible 0x01-0x63)

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x80000201B0800704XX
```

Example:

Set prepos1

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x80000201B080070401
```

Show preposX where x is the present number (99 Presets possible 0x01-0x63)

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x80000201B0800705XX
```

Example:

Show prepos1

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x80000201B080070501
```

1.3 Other

Record Tour A:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x8000060160800002
```

Stop Recording:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x8000060160830000
```

Replay Tour A in a loop:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x8000060160810001
```

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Replay Tour A once:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR  
ITE&num=1&payload=0x8000060160820001
```

Stop Replay A:

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR  
ITE&num=1&payload=0x8000060160830000
```

1.4 Absolute Positioning

Get the PAN value:

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR  
ITE&num=1&payload=0x810006011201
```

Get the TILT value:

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR  
ITE&num=1&payload=0x810006011301
```

The result is in radians x 10000. To get the degrees, you need to convert it first.

Example result:

0xf491 --> Decimal: 62609

Get the real radian value: $62609 / 10000 = 6.29609$

Get the degrees: $(6.29609 / (2 * \pi)) * 360 = 358.56$ degrees

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Set the **PAN** where x is the PAN value

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR  
ITE&num=1&payload=0x810006011203XXXX
```

Example:

In order to move the dome to a specific preposition you need to use payload 0x810006011203xxxx with the radian * 10000 value instead of xxxx.

Example to Pan 30°:

$$30 / 360 * 2 * \pi = 0.5236$$

$$0.5236 * 1000 = 5236$$

5236 → 0x1474

```
http://160.10.52.100/rcp.xml?command=0x09A5&type=P_OCTET&direction=W  
RITE&num=1&payload=0x8100060112031474
```

Set the **TILT** where x is the TILT value

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR  
ITE&num=1&payload=0x810006011303XXXX
```

Example where Tilt is set to 90°

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR  
ITE&num=1&payload=0x810006011303864F
```

Get the optical **ZOOM** magnification factor:

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR  
ITE&num=1&payload=0x810006012601
```

The result is in magnification factor x 10.

Example result:

0x12c → Decimal: 300, which means the current zoom is x 30.0

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Set the optical **ZOOM** where **x** is the magnification factor:

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR
ITE&num=1&payload=0x810006012603XXXX
```

Example to set optical **ZOOM** to x 10.0

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR
ITE&num=1&payload=0x8100060126030064
```

Please Note:

Current zoom can be in optical or digital zoom mode. The example above works only if the zoom is in optical mode. Please make sure that the ZOOM is in optical mode before setting/getting the values.

Get the digital **ZOOM** factor:

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR
ITE&num=1&payload=0x810006012001
```

Convert the magnification factor according to the table below:

ZOOM value	Digital zoom factor
0x0000 – 0x4000	Zoom is in optical
0x4001	X 1.0
0x6000	X 2.0
0x6A80	X 3.0
0x7000	X 4.0
0x7300	X 5.0
0x7540	X 6.0
0x76C0	X 7.0
0x7800	X 8.0
0x78C0	X 9.0
0x7980	X 10.0
0x7A00	X 11.0
0x7AC0	X 12.0

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Set the digital **ZOOM** where **x** is the magnification factor:

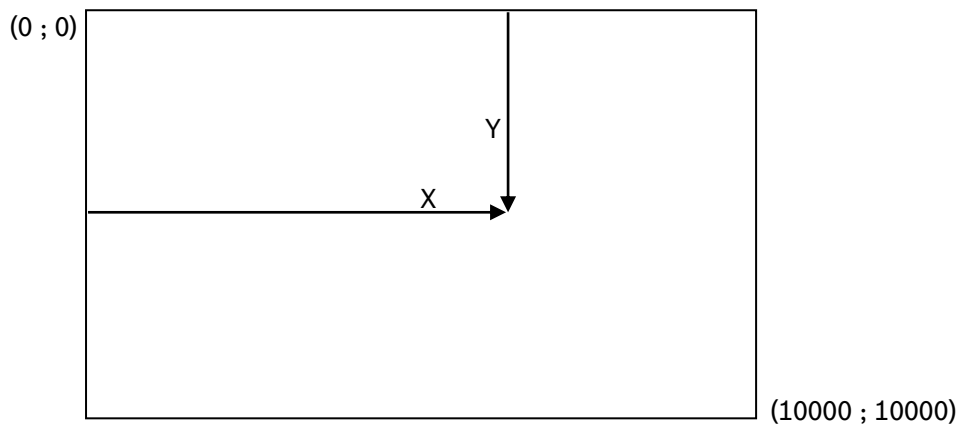
```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR
ITE&num=1&payload=0x810006012003XXXX
```

Example to set digital **ZOOM** to x 10.0

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR
ITE&num=1&payload=0x8100060120037980
```

1.5 Center click and Area Zoom (FW 6.20 and above)

The below coordinate system schema is used for the commands in this section



To **CENTER** the dome to an **X ; Y** coordinate where X and Y is normalized to (0 ; 0) and (10000 ; 10000)

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR
ITE&num=1&payload=0x810006407102XXXXYYYY
```

Example to **CENTER** the dome to the normalized position 7500 ; 5000 [0x1D4C ; 0x1388]:

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR
ITE&num=1&payload=0x8100064071021D4C1388
```

ZOOM to an AREA with the coordinates **X ; Y** and **x ; y**:

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR
ITE&num=1&payload=0x810006407002XXXXYYYYxxxxyyyy
```

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Example to **ZOOM to an AREA** with the coordinates 100 ; 150 and 7500 ; 5000 [0x64 ; 0x96 and 0x1D4C ; 0x1388]:

```
http://160.10.39.80/rcp.xml?command=0x09A5&type=P_OCTET&direction=WR  
ITE&num=1&payload=0x810006407002006400961D4C1388
```

*Please note that coordinates should be given from the top-left (X ; Y) corner to the bottom right corner (x ; y) of the area to **zoom in**.*

*Coordinates given from the bottom right corner (x ; y) to the top left corner (X ; Y) **will zoom out** relatively to the size of the area.*