

How to make CGI interface to send command to UART device

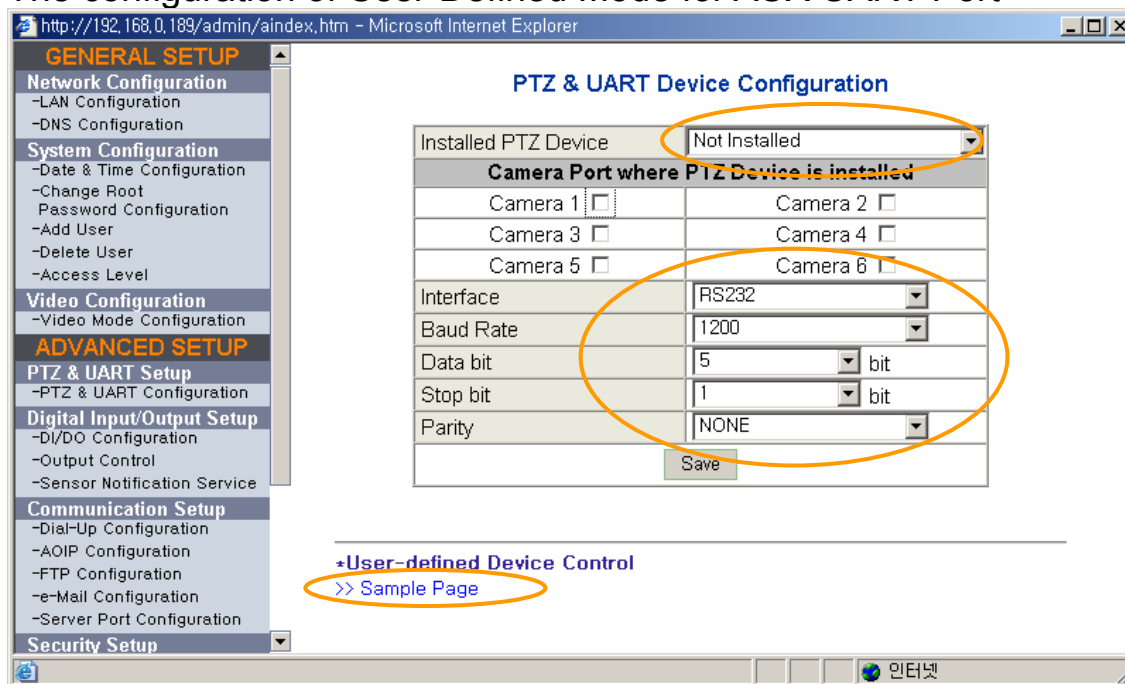
By utilizing User Defined device control mode, you can send command to UART(Universal Asynchronous Receipt and Transmission) device via FlexWATCH™ network camera or video server. You can control any device which is communicated by RS-232 or RS-485(422) communication bus through FlexWATCH™ system such as PTZ Device and Multiplexer and Access control box.

Note) FWT_GS026-Rev1 is an updated technical note from FWT_GS026_Rev 0. There major add on is that User can program to get response data from UART device such as Data Length and wait time. Please refer PARAMETER and Example 3 below.

Following is instruction how to build up CGI interface on the FlexWATCH system to control external device

In the "PTZ Device Configuration" mode, select "User-Defined Device" option and select right value communication protocol.

The configuration of User-Defined Mode for AUX UART Port



Example of User defined mode AUX Port configuration

Line Driver RS485
 Baud rate 96000
 Data Bits 8 bit
 Stop bit 1 bit
 Parity NONE

* You are required to refer to user guide or protocol of UART device to select right value.

fwptzctr.cgi

--- Request to send the stream of user data to AUX Port

Query Syntax :

```

http://<server_address>/cgi-bin/fwptzctr.cgi?
PtzId=<ptz_id>&
PtzCmd=<ptz_command>&
Weight=<ptz_weight>&
UserMode=<user_mode>&
Length=<user_length>&
Data=<user_data>&
RxLength=<rx data length>&
RxWaitTm=<rx wait time>&
FwCgiVer=<cgi_version>

```

Parameters :

<ptz_id> PTZ device ID : meaning less
 <ptz_command> : meaning less
 < ptz_weight > : meaning less
 <user_mode>: status of user defined mode
 MUST be set **1** for user define mode
 <user_length>: predefine data octet length
 <user_data>: user defined data value
 Data Format :
 Hexa Decimal : <0x??,0x??,0x??,...>
 Decimal : < (0~256),(0~256),(0~256),...>
 <rx data length> : wanted receive data length. (min=1 max=128)
 <rx wait time> : wait time for receive data.(min=1 max=999;if 100=1sec)
 <cgi_version> : cgi version <0x0001>

Example 1:(Hexadecimal)

```

http://<server_address>/cgi-bin/fwptzctr.cgi?
PtzId=1&
PtzCmd=1&
Weight=1&
UserMode=1&
Length=4&
Data=0x01,0x02,0x03,0x04&
FwCgiVer=0x0001

```

The stream of Hexadecimal data “0x01,0x02,0x03,0x04” is sent by AUX port of UART.

Example 2(Decimal)

```

http://<server_address>/cgi-bin/fwptzctr.cgi?
PtzId=1&
PtzCmd=1&
Weight=1&
UserMode=1&
Length=8&
Data=255,0,34,25,7,123,111,10&

```

FwCgiVer=0x0001

The stream of Decimal data “**255,0,34,25,7,123,111,10**” is sent by AUX port of UART.

Example 3(Decimal & Receive Data)

http://<server_address>/cgi-bin/fwptzctr.cgi?

PtzId=1&

PtzCmd=1&

Weight=1&

UserMode=1&

Length=8&

Data=255,0,34,25,7,123,111,10&

RxLength=4&

RxWaitTm=500&

FwCgiVer=0x0001

The stream of Decimal data “**255,0,34,25,7,123,111,10**” is sent by AUX port of UART.

After that, you can receive the data 4 bytes for 5 sec.

RxData=0x39,0x39,0x39,0x39

RxLeng=3

Example 4(Java Script)

```
<html>
```

```
<head>
```

```
<script language="JavaScript">
```

```
//-- OEM PTZ Function -----
```

```
var camnum=1;
```

```
function OEMPtz( command, id )
```

```
{
```

```
    // declare variables
```

```
    var data = new Array();
```

```
    var lenq=0;
```

```
    var cgistring;
```

```
    // make data for PTZ command
```

```
    data[0] = 0x20; // stx
```

```
    data[1] = id; // RS485 Id => normally same as camera id
```

```
    if(command == 1)
```

```
    { //Auto pan start
```

```
        data[2] = 0x0a;
```

```
        data[3] = 0x23;
```

```
        data[4] = 0x24; // 128 = 0x80
```

```
        data[5] = 0x25;
```

```
    }
```

```
    else
```

```
    { //Auto pan stop
```

```
        data[2] = 20;
```

```
        data[3] = 6;
```

```
        data[4] = 7;
```

```
        data[5] = 8;
```

```
    }
```

```
    data[6] = data[0] ^ data[1] ^ data[2] ^ data[3] ^ data[4] ^ data[5]; // check sum
```

```

data[7] = 0x30; // etx
leng = 8;
for(i=0;i<leng;i++)
    data[i] = data[i] + "";
cgistring = "/cgi-bin/ptz.cgi?ptzcam="+id+"&ptzcmd=" + command
+ "&speed=0&user=1&length=" + leng + "&data=" + data;
// make CGI Command : it is real CGI that is passed to SERVER
document.location.href = cgistring;
// for debugging
alert( cgistring );
}
function SelectChange( arg )
{
    camnum = arg;
}
</script>
</head>

<body>
<center><br><b>
PTZ Control Example Page for User-defined PTZ Device<br><br><br>
<form> choose camera number :

    <select name="camname" onChange="SelectChange(this.value)">
    <option value=1 selected >Camera1
    <option value=2>Camera2
    <option value=3>Camera3
    <option value=4>Camera4
    <option value=5>Camera5
    <option value=6>Camera6
    </select>

</form>

<a href="javascript:OEMPtz(1, camnum)">AutoPan Start</a> <br>
<a href="javascript:OEMPtz(0, camnum)">AutoPan Stop</a> <br><br><br>
Please, Refer This Page's html Source & JavaScript <br><br><br><br>
<table align=center><tr><td>
    <UL> <b>Related Configuration </b>
    <LI><a href="/admin/ptzcfg.htm">PTZ Device Configuration </a>
    <LI><a href="/admin/uptzcfg.htm">User-Defined Device Configuration </a>
    </UL></td></tr>
</table>
</center>
</body>
</html>

```