

IPCamera AJAX

Our product uses AJAX to get and set parameters. Currently all major browsers support AJAX. Unless otherwise specified, we assume IPCam address is 192.168.1.3, port 80, the user name and password are admin, and use IE8 browser.

Remarks:

The interface of our product is still in the stage of continuous improvement, some interface in different versions may be different, we proposed to use this manual refer to www folder.

AJAX data format

The ajax of our product use XML for data format

```
<Result>
  <Success>0/1</Success>
  <CanConfig>0/1</CanConfig>
  <ErrorCode>Error Code</ErrorCode>
  <ErrorDesc>Error Desc</ErrorDesc>
  Other data...
</Result>
```

Success is 1, means operation is successful, failure is 0, means operation is failed.

When operation is failed, ErrorCode and ErrorDesc will show the error cause.

CanConfig is 1, means can be modified, CanConfig is 0, means read only.

General Desc.

CurrentTickCount: Current ipcam system time

CurrentUpdateTickCount: Last update time for DDNS

Back to Data for Analyzing AJAX

You can use browser to analyze AJAX returned XML data, pls refer to www folder.

If you write your own program, you can use MSXML or other XML resolver to analyze data.

Authentication

Most interface requires a user name and password to access.

When login ipcam webpage , the login information will be saved in cookie, so do not need to re-offer.

If you do not login while directly through AJAX interface, you can pass user name and password by HTTP URL.

Format is user=admin&password= admin

For example, you access HTTP URL for ftp configuration:

<http://192.168.1.3/ftp.xml?user=admin&password=admin>

Results will show as below:

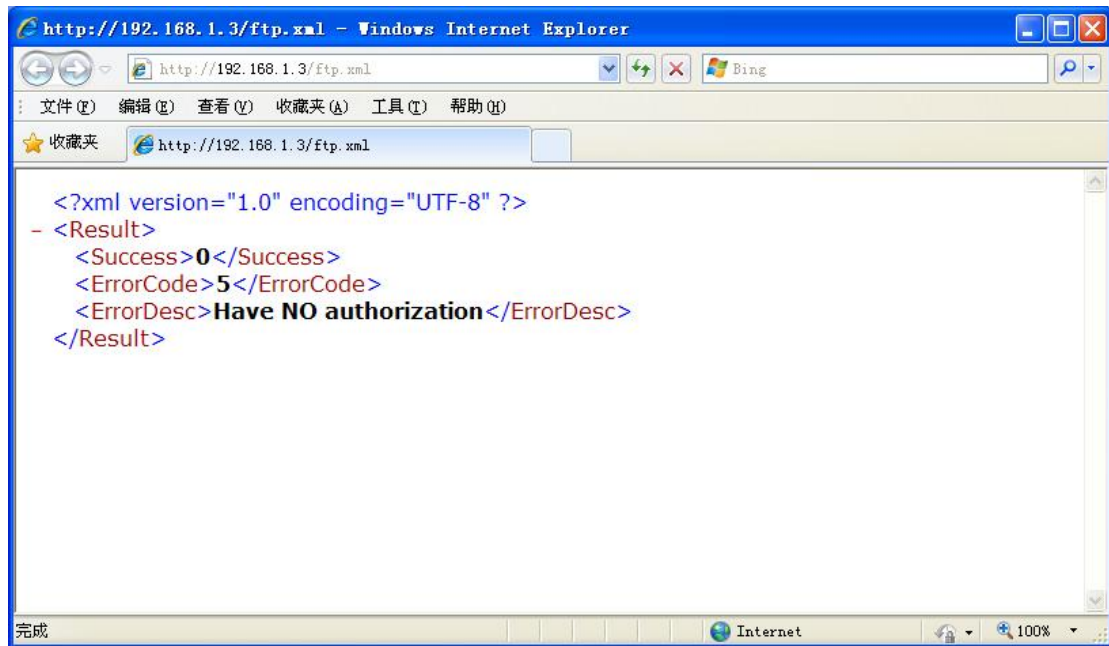


The screenshot shows a Windows Internet Explorer browser window. The address bar contains the URL: `http://192.168.1.3/ftp.xml?user=admin&password=admin`. The browser's menu bar is in Chinese, with options like '文件(F)', '编辑(E)', '查看(V)', '收藏夹(A)', '工具(T)', and '帮助(H)'. The main content area displays an XML response:

```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
  <Success>1</Success>
  <CanConfig>1</CanConfig>
  <Server>ftp.xx.com</Server>
  <Port>21</Port>
  <User>xwpcom</User>
  <Password>xxxxxx</Password>
  <Dir>/ipcam</Dir>
  <TimeUpload>0</TimeUpload>
  <Interval>60</Interval>
</Result>
```

The status bar at the bottom shows '完成' (Completed) and 'Internet'.

If you do not pass the user name and password, it will back to following error:



AJAX Interface

Most configuration is readable and writable.

To read interface is generally named by "parameter name.xml", to write interface is generally named by "set parameter name. xml" .

For example:

access to Ftp configuration interface is ftp.xml

Modify Ftp configuration interface is setftp.xml

Some interface is read-only, so there is no corresponding setXXX.xml interface.

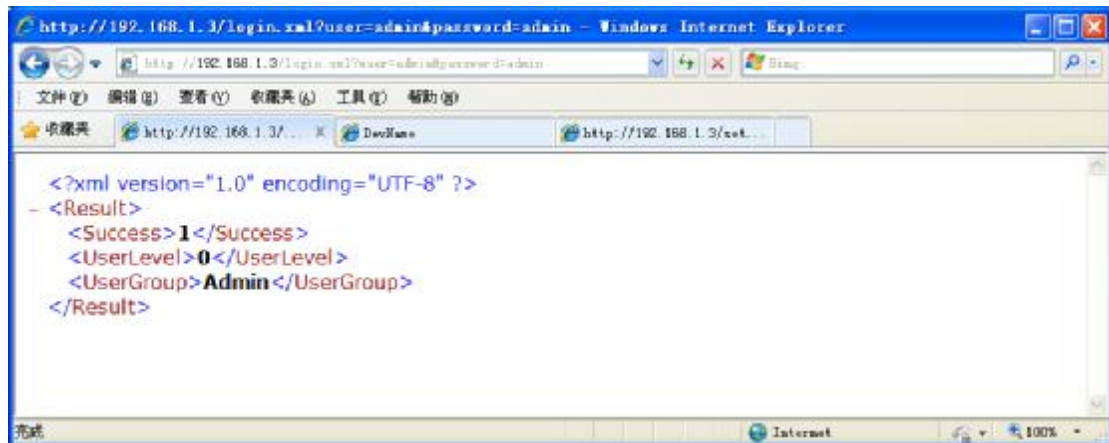
Below is basically describe the AJAX interface in accordance with webpage menu sequence.

Login Page

Login

login.xml

<http://192.168.1.3/login.xml?user=admin&password=admin>



UserLevel: 0 for administrator, 1 for operator, 2 for visitors, -1 for login failed.

UserGroup: there are Admin, Operator, Guest

Wifi Configuration

wire.xml

```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
  <Success>1</Success>
  <CableConnect>1</CableConnect>
  <CanConfig>1</CanConfig>
  <Mac>00-05-3B-F7-00-C1</Mac>
- <IP>
  <Style>dhcp</Style>
  <IP>192.168.1.3</IP>
  <SubnetMask>255.255.255.0</SubnetMask>
  <Gateway>192.168.1.1</Gateway>
</IP>
- <DNS>
  <Style>dhcp</Style>
  <Dns0>192.168.1.1</Dns0>
  <Dns1>192.168.1.1</Dns1>
</DNS>
</Result>
```

To get wired network configuration parameters

CableConnect is 1, means insert cable, 0 means not insert cable

Mac: Wired MAC Address

IP is wired IP address information

Style can be static (static IP) or dhcp (dynamic IP)

IP: Current wired IP Address

SubnetMask: Subnet mask

Gateway: Gateway

DNS is DNS server information

Style can be static or dhcp

Dns0: Preferred DNS server

Dns1: Alternate DNS server

setwire.xml

http://192.168.1.3/setwire.xml?IP_Style=dhcp&IP=192.168.1.3&SubnetMask=255.255.255.0&Gateway=192.168.1.1&Dns_Style=dhcp&Dns0=192.168.1.1&Dns1=192.168.1.1



To modify wired configuration parameters:

IP_Style: dhcp or static

IP: ew IP address

SubnetMask: subnet mask

Gateway: Gateway

Dns_Style: dhcp or static

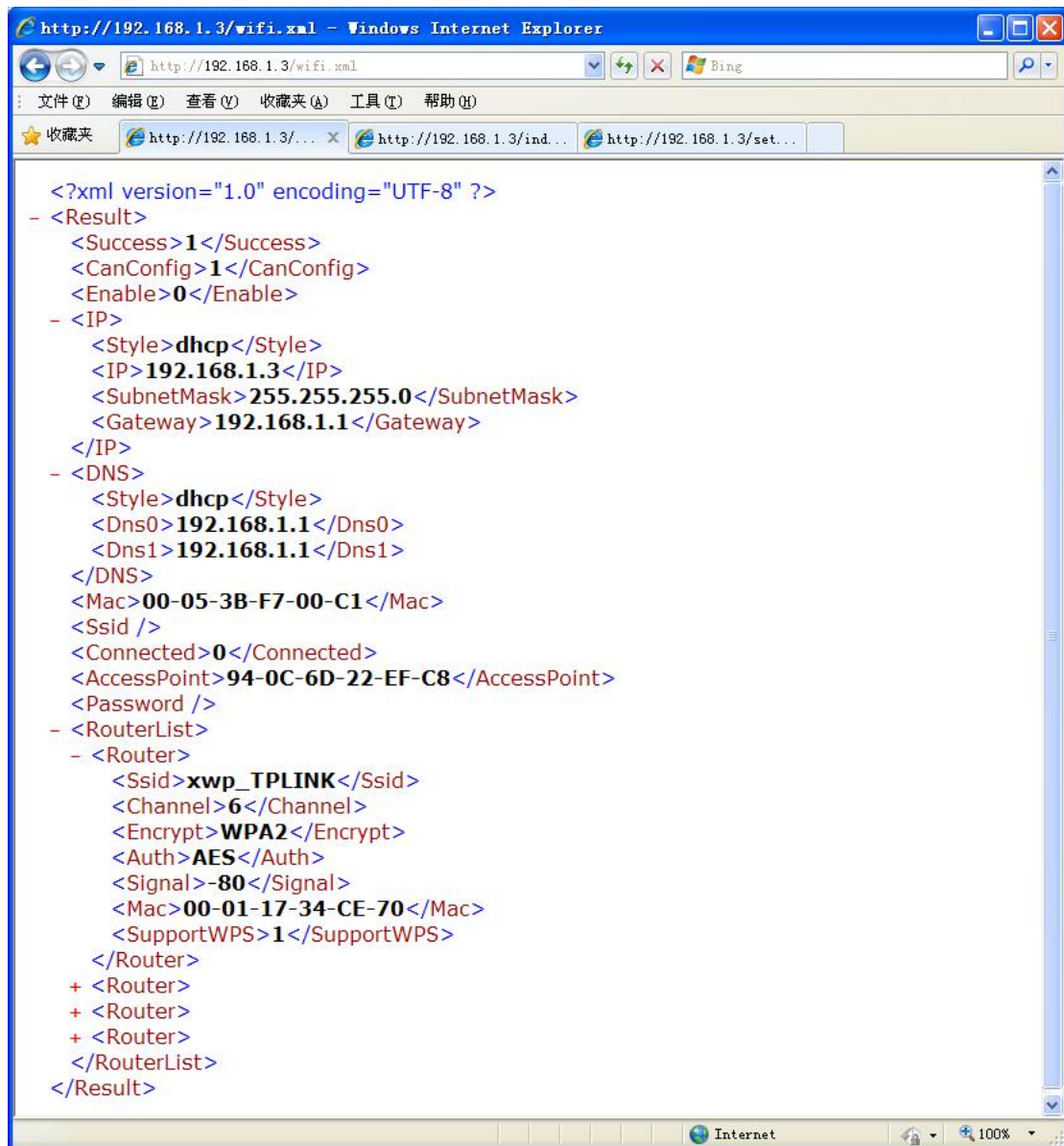
Dns0: Preferred DNS server

Dns1: Alternate DNS server

Wifi Connection

wifi.xml

<http://192.168.1.3/wifi.xml>



```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
  <Success>1</Success>
  <CanConfig>1</CanConfig>
  <Enable>0</Enable>
  - <IP>
    <Style>dhcp</Style>
    <IP>192.168.1.3</IP>
    <SubnetMask>255.255.255.0</SubnetMask>
    <Gateway>192.168.1.1</Gateway>
  </IP>
  - <DNS>
    <Style>dhcp</Style>
    <Dns0>192.168.1.1</Dns0>
    <Dns1>192.168.1.1</Dns1>
  </DNS>
  <Mac>00-05-3B-F7-00-C1</Mac>
  <Ssid />
  <Connected>0</Connected>
  <AccessPoint>94-0C-6D-22-EF-C8</AccessPoint>
  <Password />
  - <RouterList>
    - <Router>
      <Ssid>xwp_TPLINK</Ssid>
      <Channel>6</Channel>
      <Encrypt>WPA2</Encrypt>
      <Auth>AES</Auth>
      <Signal>-80</Signal>
      <Mac>00-01-17-34-CE-70</Mac>
      <SupportWPS>1</SupportWPS>
    </Router>
    + <Router>
    + <Router>
    + <Router>
  </RouterList>
</Result>
```

searchwifi.xml

To advise IPCamera to re-search Wireless router

setwifi.xml

Modify wireless connection configuration.

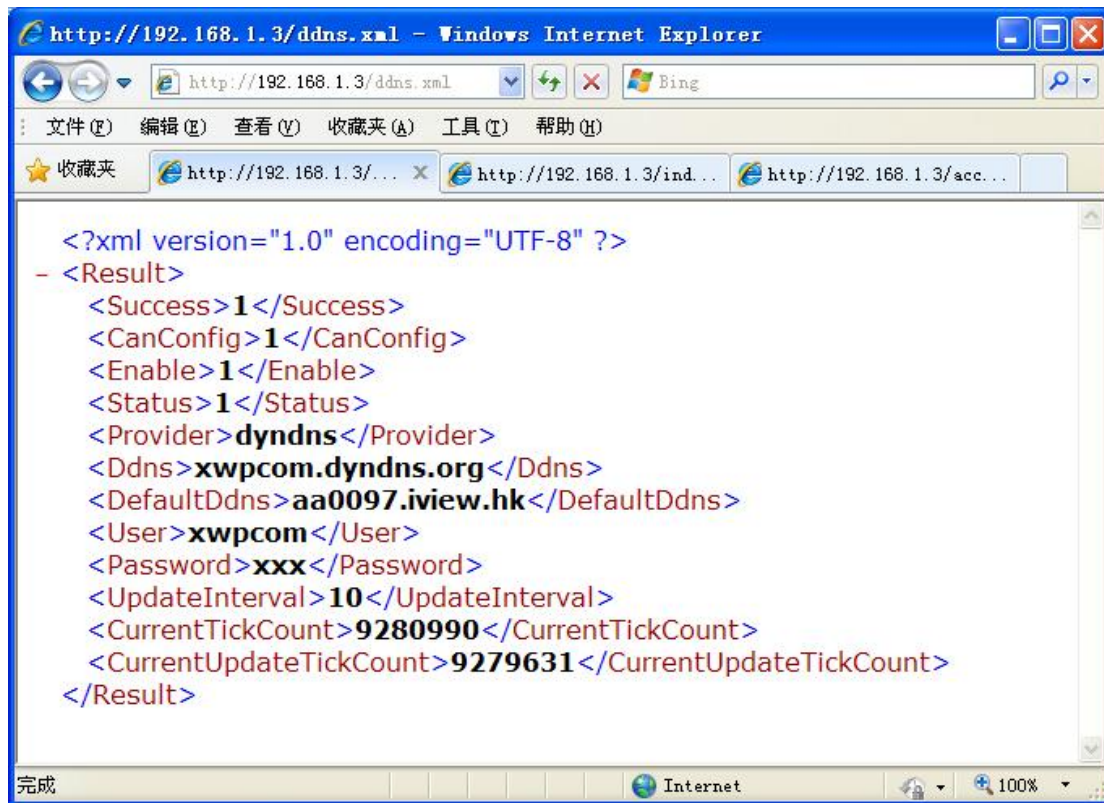
Parameters, please refer to [www / wifi.htm](#) page.

getwifi.xml

Get wireless router information searched

Dynamic DNS

ddns.xml



```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
  <Success>1</Success>
  <CanConfig>1</CanConfig>
  <Enable>1</Enable>
  <Status>1</Status>
  <Provider>dyndns</Provider>
  <Ddns>xwpc.com.dyndns.org</Ddns>
  <DefaultDdns>aa0097.iview.hk</DefaultDdns>
  <User>xwpc.com</User>
  <Password>xxx</Password>
  <UpdateInterval>10</UpdateInterval>
  <CurrentTickCount>9280990</CurrentTickCount>
  <CurrentUpdateTickCount>9279631</CurrentUpdateTickCount>
</Result>
```

Enable: Whether to enable ddns

Status: ddns state

0: Initializing

1: Processing

2: Disable

3: Invalid Parameter

4: Fail to connect DDNS server

5: Fail to obtain external IP

6: User name or password error

7: Not find DDNS

8: Failure

9: Update successful

Parameters meaning refer to GetDdnsStatus (Status) in www / tool.js

Provider: DDNS service provider, can be dyndns, 3322dyndns, 3322statdns etc.

Ddns: Current ddns

DefaultDdns: Default Ddns

User: ddns account

Password: ddns password

UpdateInterval: ddns update interval, unit: minutes

CurrentTickCount: current system time for ipcam

CurrentUpdateTickCount: last update DDNS time

The system time of IPCam device itself may not be accurate, so we use relative time.

CurrentTickCount, CurrentUpdateTickCount combined with UpdateInterval, it can calculate this update time and next update time relative to the browser DDNS.

setddns.xml

<http://192.168.1.3/setddns.xml?enable=1&Provider=dyndns&Ddns=xwpc.com.dyndns.org&DdnsUsr=xwpc.com&DdnsPwd=xxx&UpdateInterval=10>



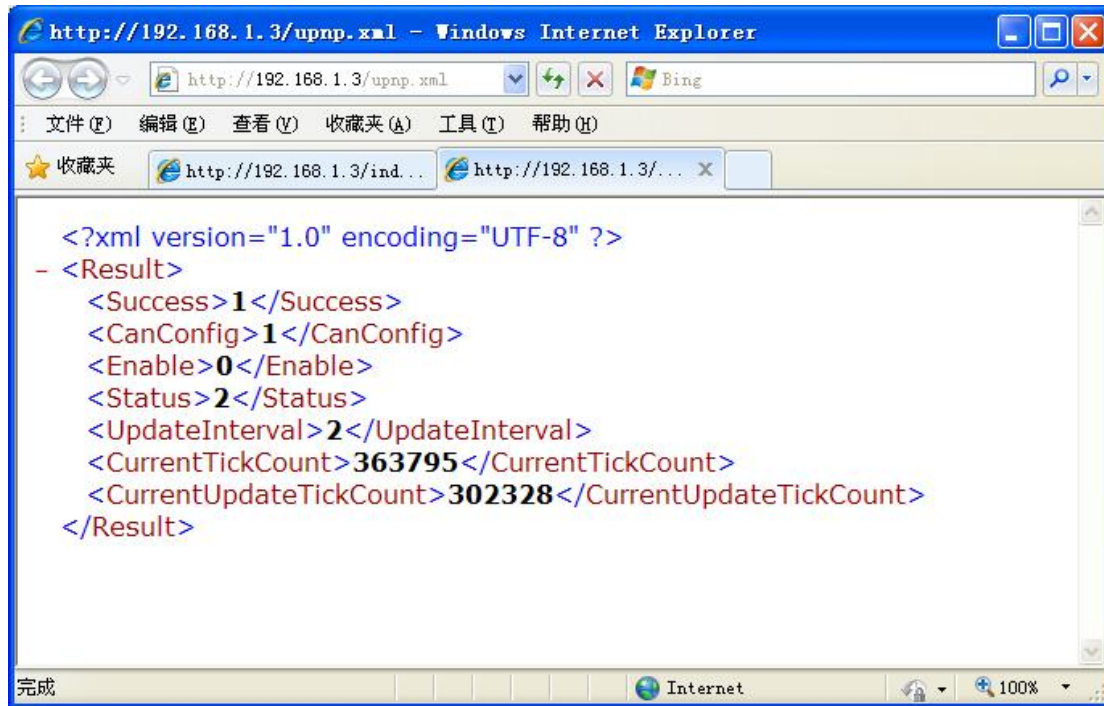
```
<?xml version="1.0" encoding="UTF-8" ?>
<Result>
  <Success>1</Success>
</Result>
```

ddns account is transfer by DdnsUsr

ddns password is transfer by DdnsPwd

UPnP Port Mapping

upnp.xml



Back to upnp status

Enable: 1 for enable upnp, 0 for disable upnp

Status: upnp status

0: Initialization

1: Processing

2: Disable

3: Initialization failure

4: Failed

5: Failed to get LAN IP

6: Success

UpdateInterval: update interval, unit: minutes

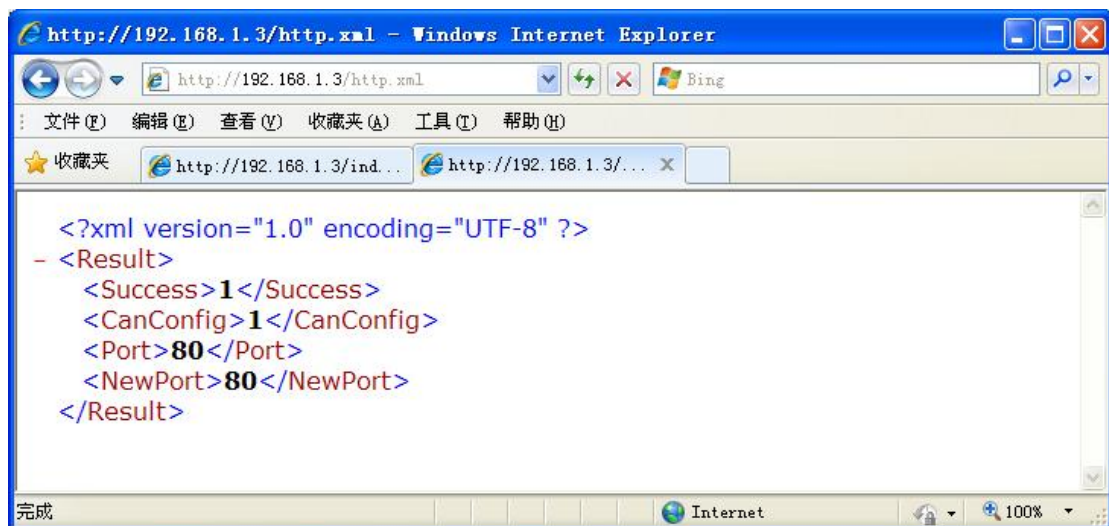
setupnp.xml

<http://192.168.1.3/setupnp.xml?enable=1>



Connect Port

http.xml



Back to port information

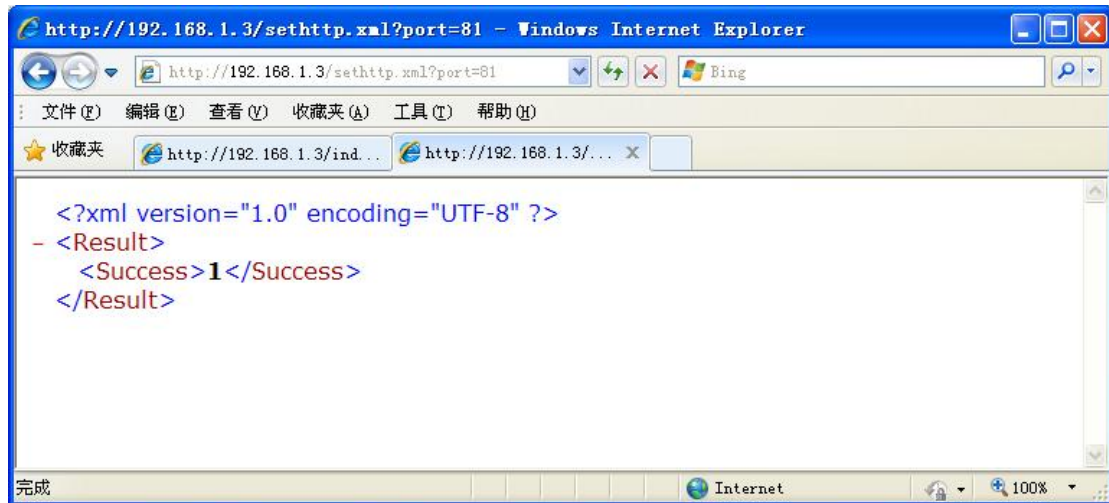
Port: current port for ipcam used

NewPort: port when ipcam reboot at next time

If port changed, new port can be used after reboot manually, so here we need to return current port and new port simultaneously.

sethttp.xml

<http://192.168.1.3/sethttp.xml?port=81>



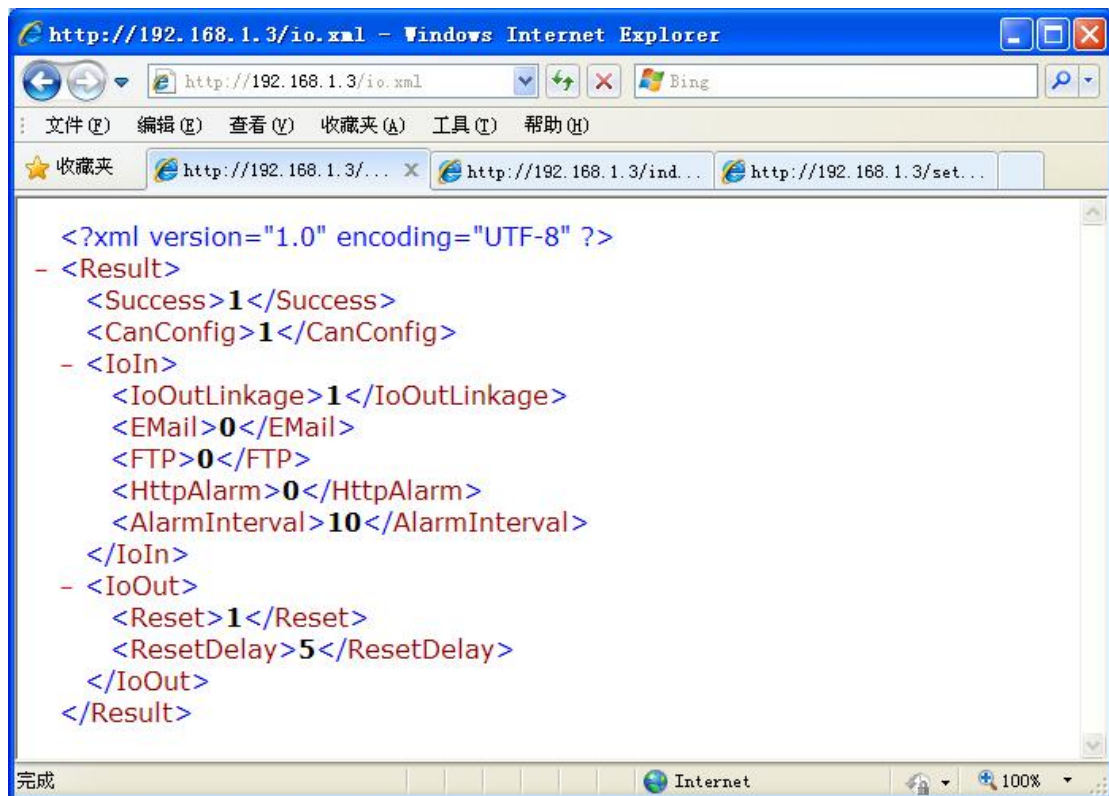
Port: new port

After modify port, the page will display "need to reboot to take effect."



IO Configuration

io.xml



```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
  <Success>1</Success>
  <CanConfig>1</CanConfig>
- <IoIn>
  <IoOutLinkage>1</IoOutLinkage>
  <EMail>0</EMail>
  <FTP>0</FTP>
  <HttpAlarm>0</HttpAlarm>
  <AlarmInterval>10</AlarmInterval>
</IoIn>
- <IoOut>
  <Reset>1</Reset>
  <ResetDelay>5</ResetDelay>
</IoOut>
</Result>
```

IoIn node

IoOutLinkage: whether to link IO output port

EMail: Enable email alert

Ftp: Enabled ftp alarm

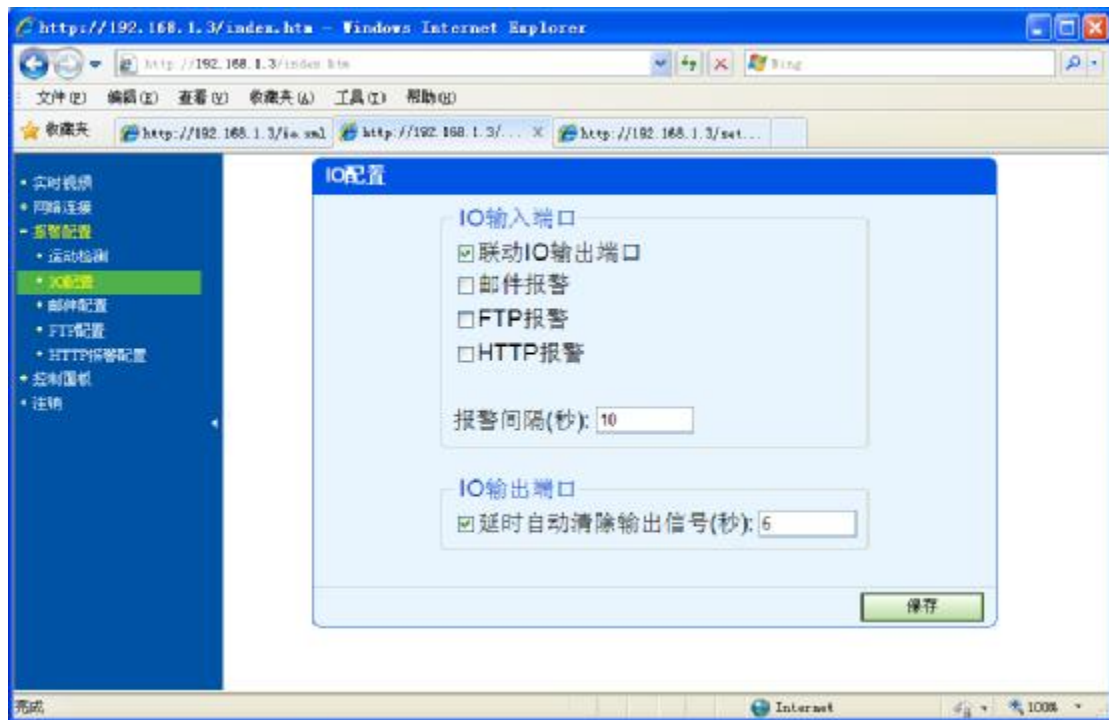
HttpAlarm: Enable http alarm

AlarmInterval: warning interval, unit: seconds

IoOut node:

Reset: whether delay to clear output info automatically

ResetDelay: delay time, unit: seconds



setio.xml

Set IO configuration

Same parameters as io.xml

Email Configuration

smtp.xml

<http://192.168.1.3/smtp.xml>



Server: email server address

Port: email server port

Sender: sender email address

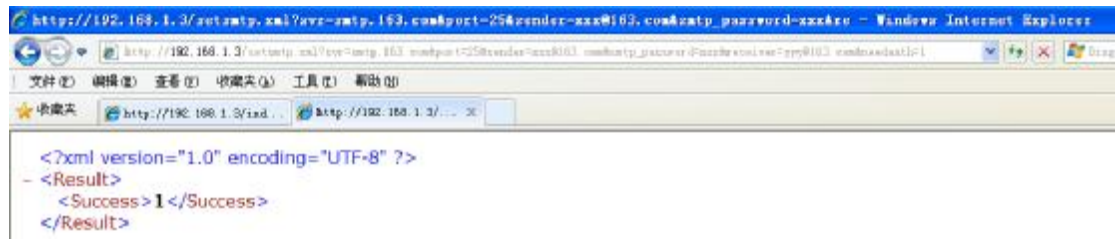
Password: sender password

Receiver: Recipient email address

NeedAuth: 1 means server requires authentication

setsmtp.xml

http://192.168.1.3/setsmtp.xml?svr=smtp.163.com&port=25&sender=xxx@163.com&smtp_password=xxx&receiver=yyy@163.com&needauth=1



svr: email server address

port: email server port

sender: sender email address

smtp_password: sender password

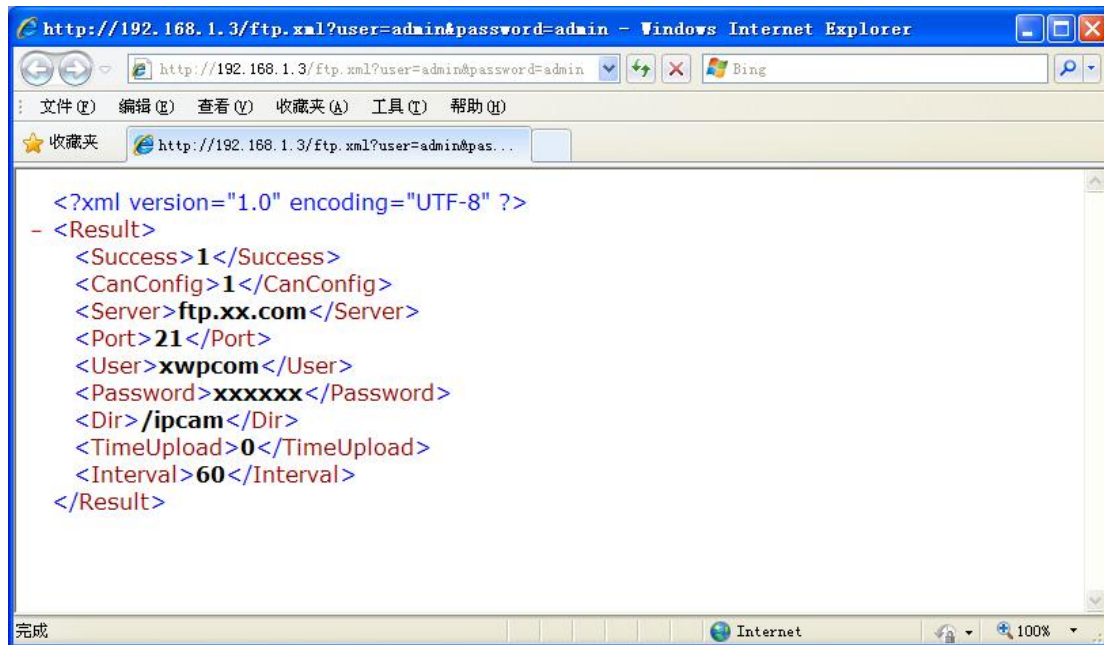
receiver: Recipient email address

NeedAuth: 1 means server requires authentication

FTP Configuration

[ftp.xml](#)

Backto ftp configuration info.



Server: ftp server address

Port: ftp server port, usually 21

User: ftp account

Password: ftp password

Dir: Folder

TimeUpload: 1 for uploading images by time

Interval: the interval seconds for images uploaded regularly

setftp.xml

Modify ftp configuration

http://192.168.1.3/setftp.xml?server=smtp.xxx.com&port=21&ftp_user=xxx&ftp_password=xxx&dir=ipcam&timeupload=0&interval=30

Parameters is basically same as ftp.xml, the difference lies in account is transfer by ftp_user, and password is transfer by ftp_password. This is to avoid the conflicts of user and passport when authentication .



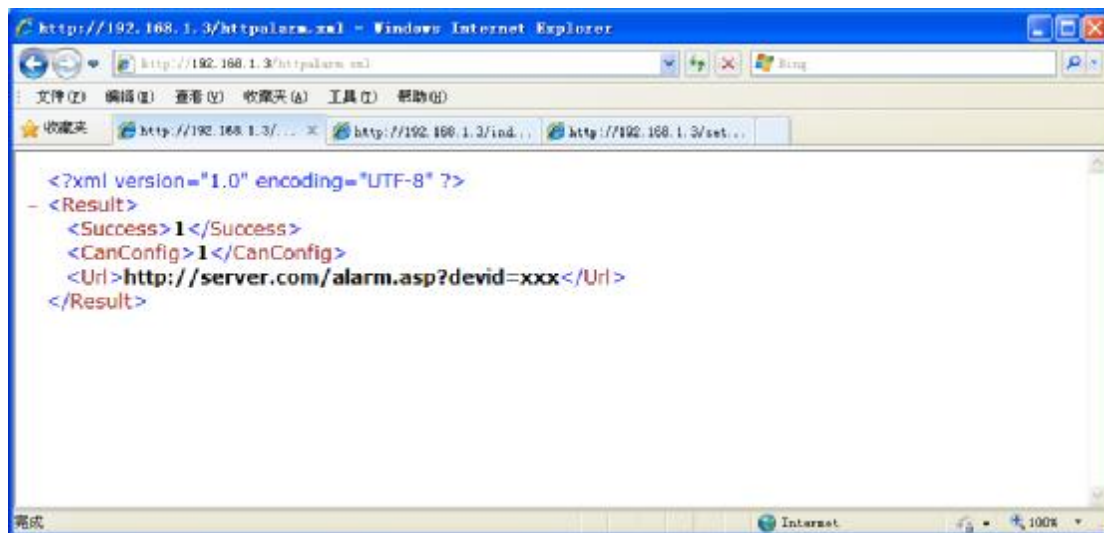
HTTP Alarm Configuration

When alarm, it will connect with specified HTTP server, and upload some parameters.

When HTTP server receives this data, it will make linkage process accordingly, such as take picture and inform users.

httpalarm.xml

<http://192.168.1.3/httpalarm.xml>



[Url:http](#) Alarm Server Address

sethttpalarm.xml

Modify HTTP Alarm Address

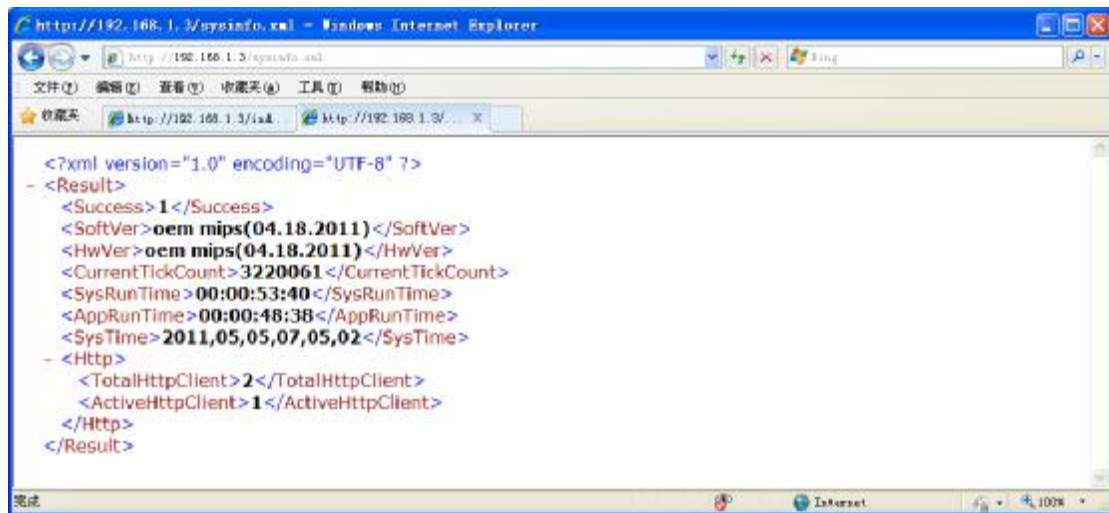
<http://192.168.1.3/sethttpalarm.xml?url=www.server.com/page.asp>

System Info.

sysinfo.xml

Back to system information

<http://192.168.1.3/sysinfo.xml>



The screenshot shows a Windows Internet Explorer browser window displaying the XML content of the file `http://192.168.1.3/sysinfo.xml`. The XML content is as follows:

```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
  <Success>1</Success>
  <SoftVer>oem mips(04.18.2011)</SoftVer>
  <HwVer>oem mips(04.18.2011)</HwVer>
  <CurrentTickCount>3220061</CurrentTickCount>
  <SysRunTime>00:00:53:40</SysRunTime>
  <AppRunTime>00:00:48:38</AppRunTime>
  <SysTime>2011,05,05,07,05,02</SysTime>
- <Http>
  <TotalHttpClient>2</TotalHttpClient>
  <ActiveHttpClient>1</ActiveHttpClient>
</Http>
</Result>
```

SoftVer: Software version

HwVer: Hardware version

SysRunTime: System Run time

AppRunTime: Firmware main program running time, format (days: hours: minutes: seconds)

SysTime: IPCam system time

Event Reviewer

log.xml

Back to ipcam running blog to diagnose error cause.

<http://192.168.1.3/log.xml>

```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
  <Success>1</Success>
  <Count>100</Count>
  <CurrentTickCount>3965186</CurrentTickCount>
- <Log>
  <Tick>1707842</Tick>
  <Module>Upnp</Module>
  <Level>Info</Level>
  <Msg>AddPortMapping(81)</Msg>
</Log>
- <Log>
  <Tick>1707858</Tick>
  <Module>Upnp</Module>
  <Level>Info</Level>
  <Msg>has own port,upnp success</Msg>
</Log>
- <Log>
  <Tick>1824858</Tick>
  <Module>Upnp</Module>
  <Level>Info</Level>
  <Msg>upnp init</Msg>
</Log>
+ <Log>
- <Log>
  <Tick>1826874</Tick>
  <Module>Upnp</Module>
  <Level>Info</Level>
```

Tick: Events occurred time

Module: Events Module

Level: Event Level

Msg: Event Description

Device Info.

devinfo.xml

Back to device information

<http://192.168.1.3/devinfo.xml>



Name: device name, it will appear in login page, and also can be displayed in the search tool.

Greeting: it appears at login page, you can use it to add some description information.

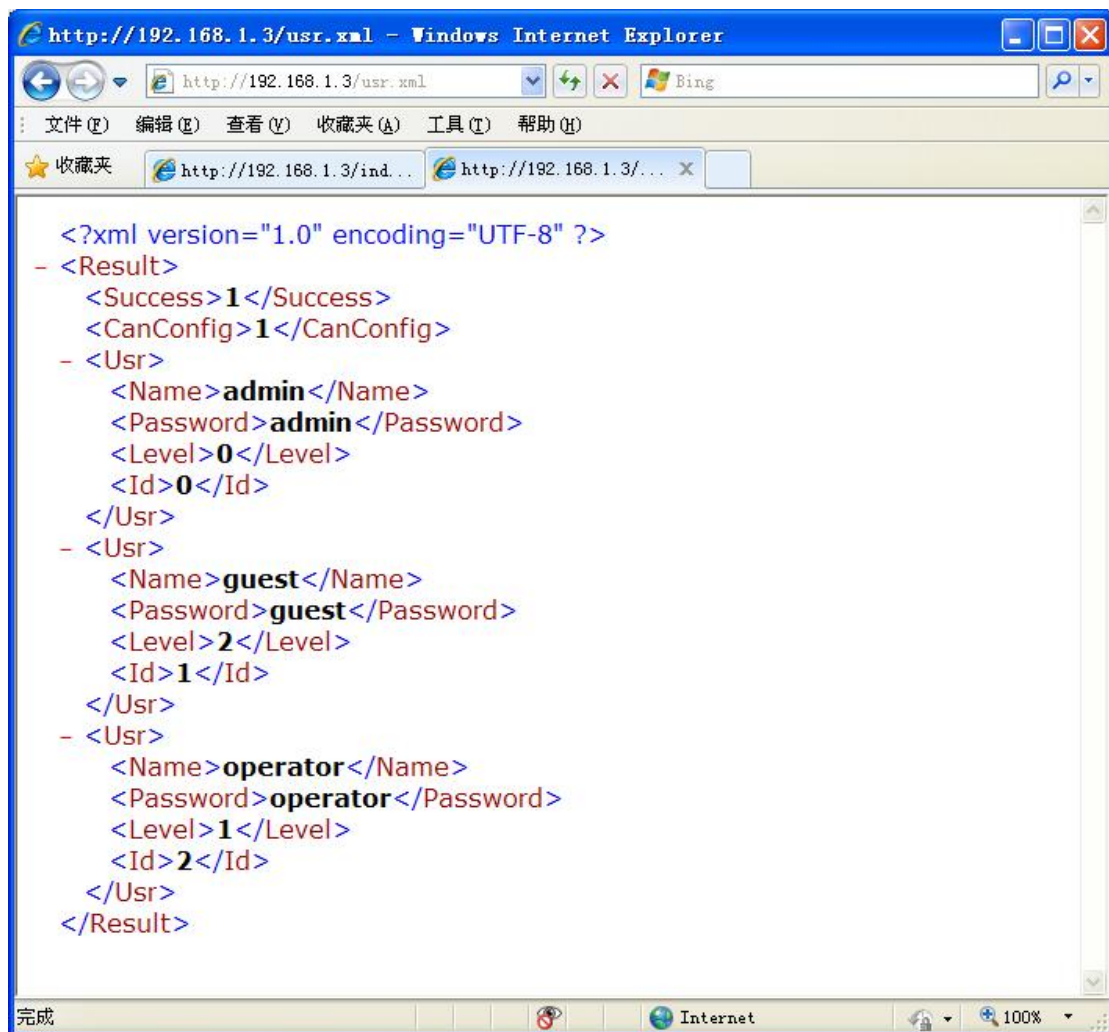


User Account

usr.xml

All user account information when back to device.

<http://192.168.1.3/usr.xml>



Usr means user node

Name: User Name

Password: password

Level: User Level

0: administrator

1: Operator

2: Visitors

Id: unique identifier for each user, because the user name is unique, so you can use user name identifies the user uniquely, so delusr.xml and editusr.xml do not use this Id.

delusr.xml

Delete specified user

http://192.168.1.3/delusr.xml?del_usr=guest

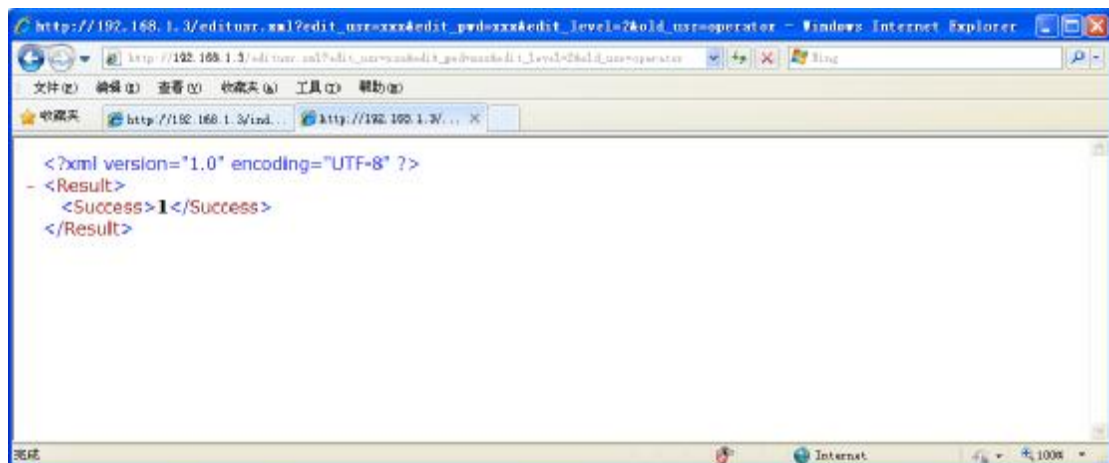


del_usr: to delete user name

editusr.xml

To create new users or modify user names, passwords and user levels

http://192.168.1.3/editusr.xml?edit_usr=xxx&edit_pwd=xxx&edit_level=2&old_usr=operator



When old_usr is empty, it means to create new user

Otherwise, it means modify old_usr configuration

edit_user: New user name

edit_pwd: new user password

edit_level: new user level

Anonymous Visit

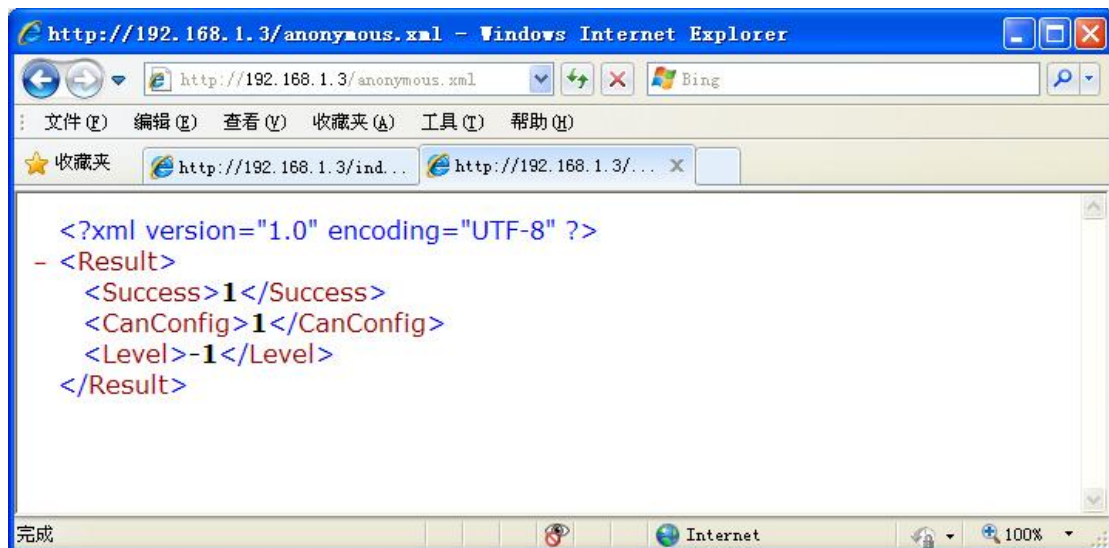
anonymous.xml

Anonymous access means whether to allow users to access ipcam, and anonymous user id level when not to enter a user name and password.

Some occasions, we want ipcam can be access to all users, for users convenience, it does not need a user name and password to access ipcam, here you can enable anonymous access.

On other occasions, it is recommended to disable anonymous access.

<http://192.168.1.3/anonymous.xml>



Level:

-1: Disable

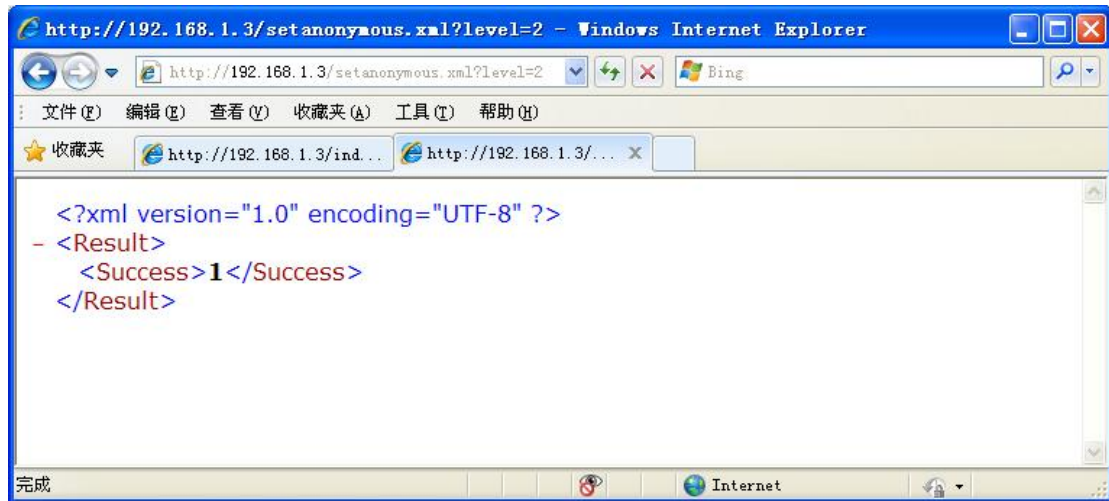
0: Administrator

1: Operator

2: Visitors

setanonymous.xml

<http://192.168.1.3/setanonymous.xml?level=2>



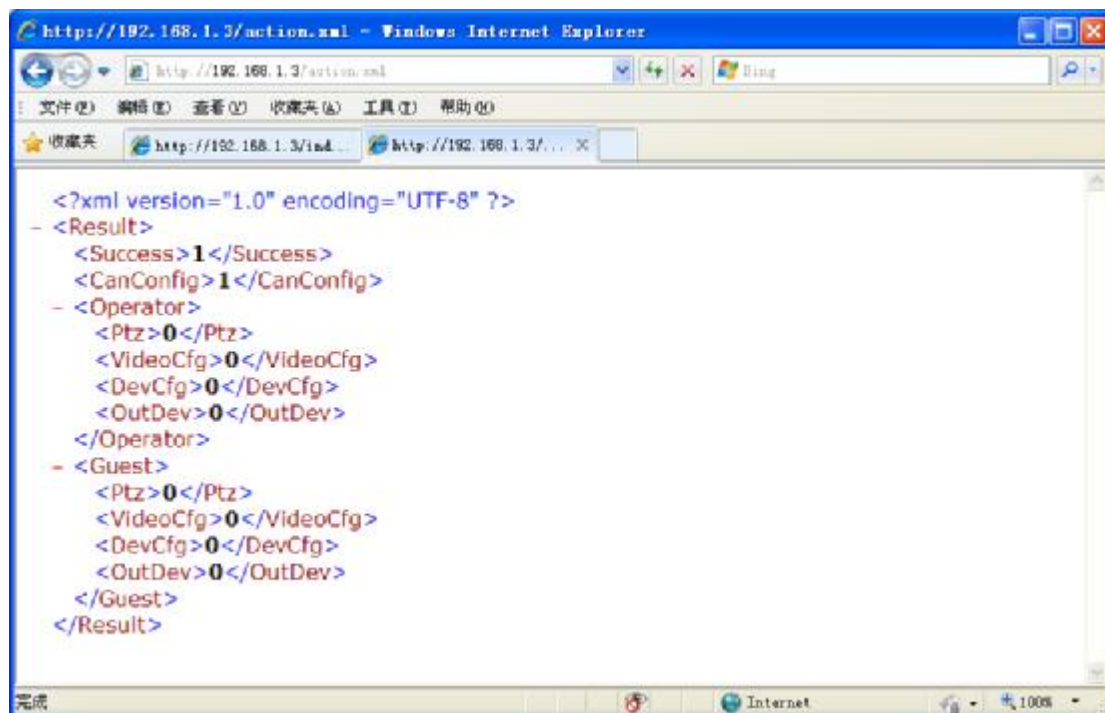
level: set anonymous access user level

Operation Authority

action.xml

Back to operator and visitors authority

<http://192.168.1.3/action.xml>



The screenshot shows a Windows Internet Explorer browser window displaying the XML content of the file `http://192.168.1.3/action.xml`. The XML is structured as follows:

```
<?xml version="1.0" encoding="UTF-8" ?>
- <Result>
  <Success>1</Success>
  <CanConfig>1</CanConfig>
  - <Operator>
    <Ptz>0</Ptz>
    <VideoCfg>0</VideoCfg>
    <DevCfg>0</DevCfg>
    <OutDev>0</OutDev>
  </Operator>
  - <Guest>
    <Ptz>0</Ptz>
    <VideoCfg>0</VideoCfg>
    <DevCfg>0</DevCfg>
    <OutDev>0</OutDev>
  </Guest>
</Result>
```

setaction.xml

http://192.168.1.3/setaction.xml?operator_ptz=1&operator_videocfg=1&operator_devcfg=0&operator_outdev=0&guest_ptz=1&guest_videocfg=0&guest_devcfg=0&guest_outdev=0

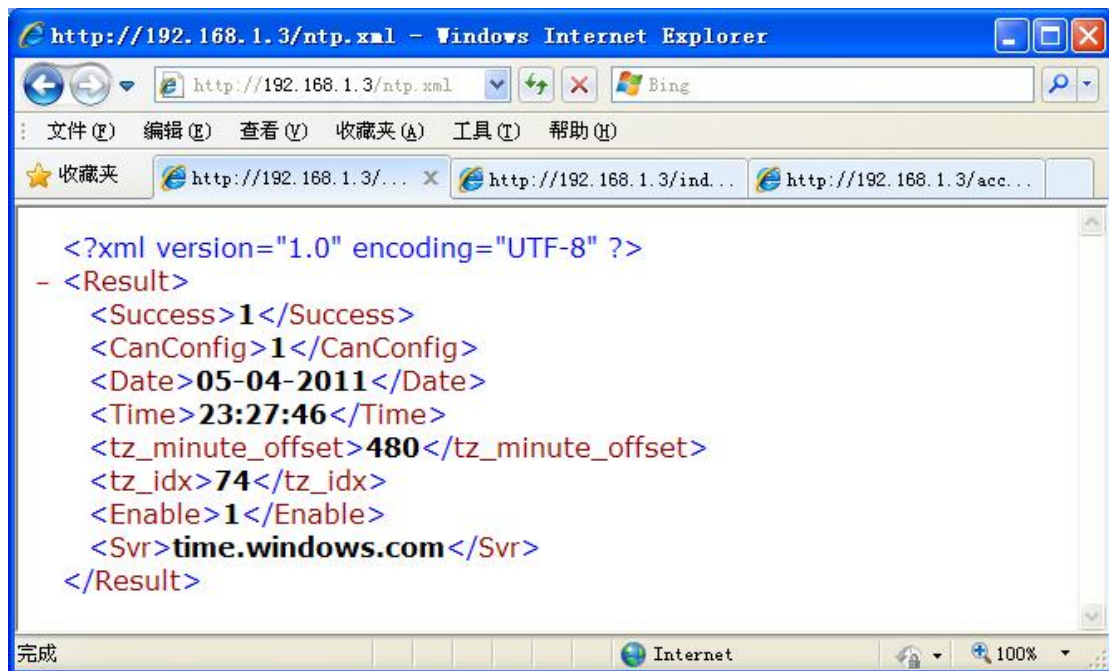


operator_xxx is operator permission

guest_xxx is visitors permission

Date and Time

ntp.xml



Date is current date for IPCam

Time is current time for IPCam

tz_minute_offset is time zone offset, units is minutes, such as China time zone is GMT +08:00, so its value is 480 minutes.

tz_idx is time zone subscript, please refer to time zone string in www / tool.js.

Enable: 1 means to enable NTP time

Svr is NTP server

setntp.xml

<http://192.168.1.3/setntp.xml?tz=74&&date=05-04-2011&time=23:34:45&enable=1&syncpc=1>



tz is time zone subscript

syncpc:1 means time synchronization

Outer Device

outerdev.xml

<http://192.168.1.3/outerdev.xml>

Dev: external device node

Addr: device address

Port: device port

Usr: user name

Password: password

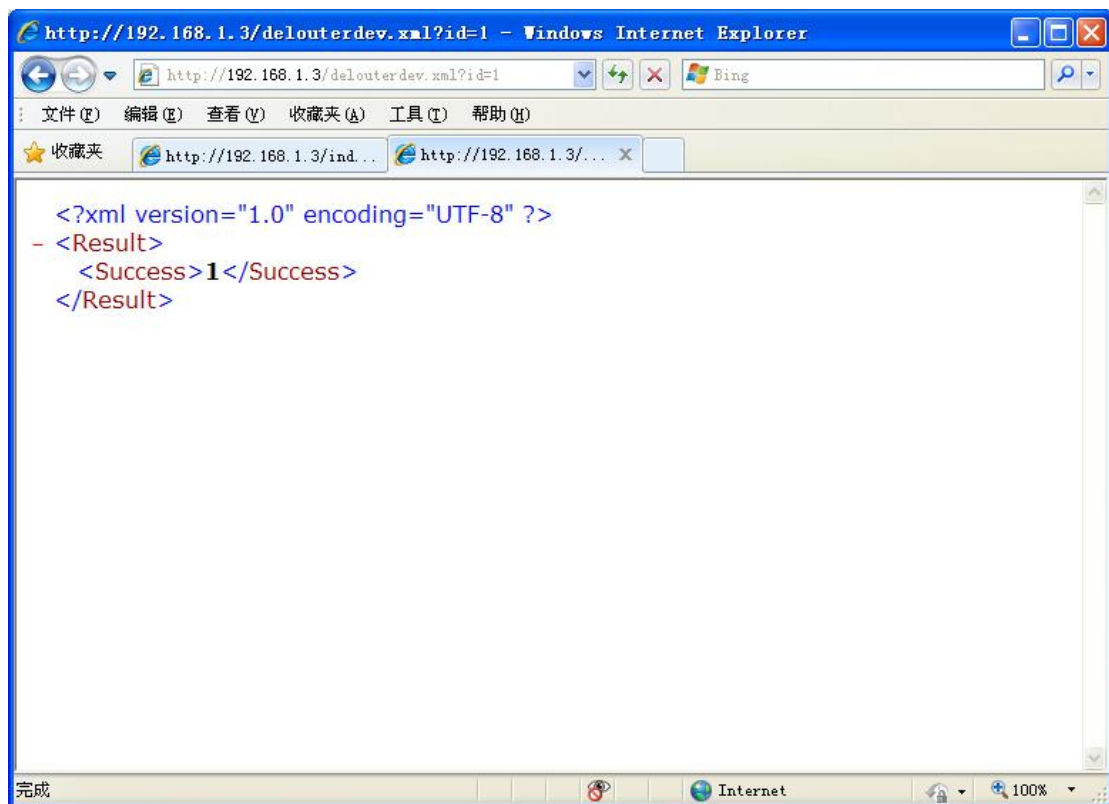
Id: the unique identification of ipcam for external device, which is used only for DelOuterDev.xml and EditOuterDev.xml

delouterdev.xml

Delete specified external device

<http://192.168.1.3/delouterdev.xml?id=1>

id is returned by the outerdev.xml



editouterdev.xml

Modify outer device configuration

http://192.168.1.3/editouterdev.xml?id=2&dev_addr=192.168.1.6&port=82&edit_usr=admin&edit_pwd=xxx



id: device ID back from outerdev.xml

dev_addr: device address

port: device port

edit_usr: device users

edit_pwd: device password

PTZ Configuration

ptz.xml

<http://192.168.1.3/ptz.xml>



HMirror: Horizontal Mirror

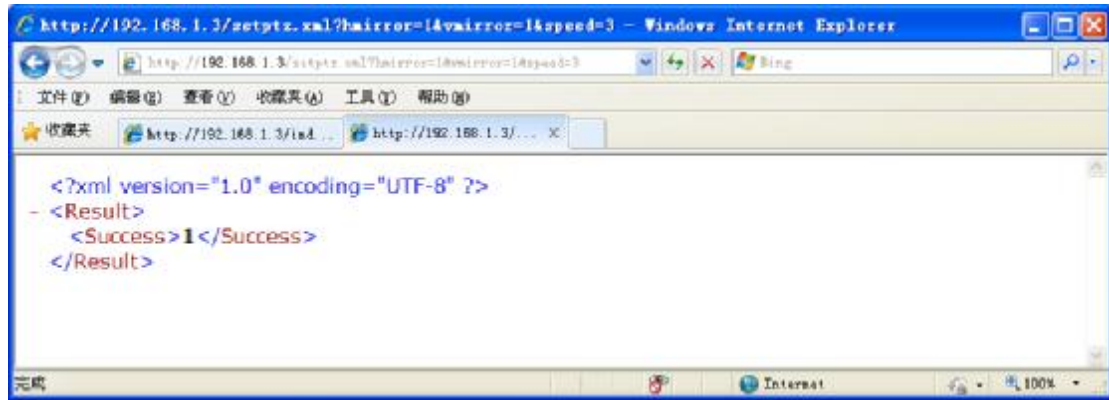
VMirror: Vertical Mirror

Speed: PTZ speed

DelayLoop and SpeedType are insignificance.

setptz.xml

<http://192.168.1.3/setptz.xml?hmirror=1&vmirror=1&speed=3>



Local Configuration

Local configuration is stored in cookie in the browser, please refer to [www / local.htm](#) file.

Reboot IPCam

reboot.xml

Reboot Device

FTP Server

ftpserver.xml

Whether to enable built-in ftp server

setftpserver.xml

<http://192.168.1.3/setftpserver.xml?enable=1>

Restore Factory Defaults

reset.xml

Set device configuration to factory defaults

Current User Operating Authority

access.xml

Back to current user's operating authority.

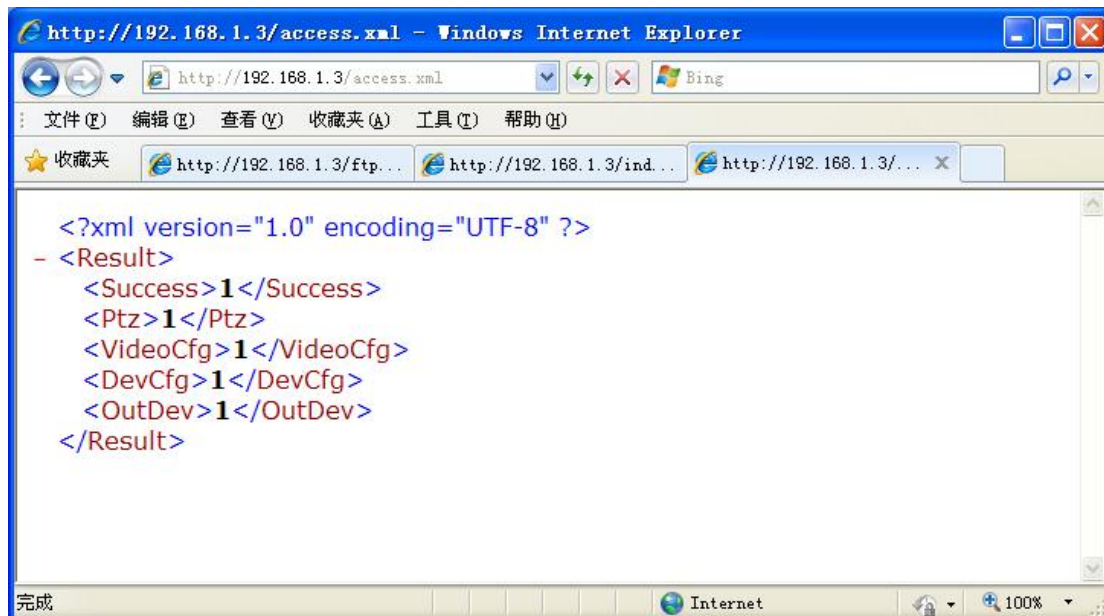
The current operating authority is divided into following categories:

Ptz: 1 means PTZ operation

VideoCfg: 1 means modify video parameters

DevCfg: 1 means device parameters configured

OutDev: 1 means access to IPCam external devices.



cmd.xml Instruction

cmd.xml Instruction

cmd.xml integrates a lot of sub-functions, specific usage pls refer to [www / mobile.htm](http://www/mobile.htm)

Move PTZ

moveptz

cmd.xml?cmd=moveptz&tick=100&dir="+event.srcElement.id+"&nPtzTimes="+g_ptzTimes++;

Switch to VGA

cmd.xml?cmd=setvga&"+g_nIndex++;

Switch to QVGA

cmd.xml?cmd=setqvga&"+g_nIndex++;

Horizontal Mirror

cmd.xml?cmd=invertmirror&dir=hor&"+g_nIndex++;

Vertical Flip

cmd.xml?cmd=invertmirror&dir=vert&"+g_nIndex++;