

# 2010

## eZController



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## Introduction:

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IPTV ezController is a software including web server, html, CCGI binary file and SQLite database file.

User can remotely control IPTV125 STB via the network.

The user could login to web page and control ezController through CGI.

ezController can send data to STB or receive data from STB through UNICAST or MULTICAST.

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Version: 2.0

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INSTALL: Linux based PC (No firewall on the Linux PC)

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1.

```
tar zxvf ezController.tar.gz
```

USAGE:

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1. Change directory to your ezController directory:

```
cd ezController
```

2. Start ezController:

```
./ezc
```

eZcontroller use port 9090 as default for its webserver. User can assign different http port number to ezController's webserver.

```
./ezc
```

The URL of your ezController webpage will be `http://your_host_ip:9090`

```
./ezc 5678
```

The URL of your ezController webpage will be `http://your_host_ip:5678`

PS: You must execute ./ezc under your ezController directory otherwise you will not find ezController's webpages.

### 3. Login to ezController: (use any PC besides the Linux PC)

1. Open your web browser (support: IE, Firefox).

2. enter URL of your ezController webpage

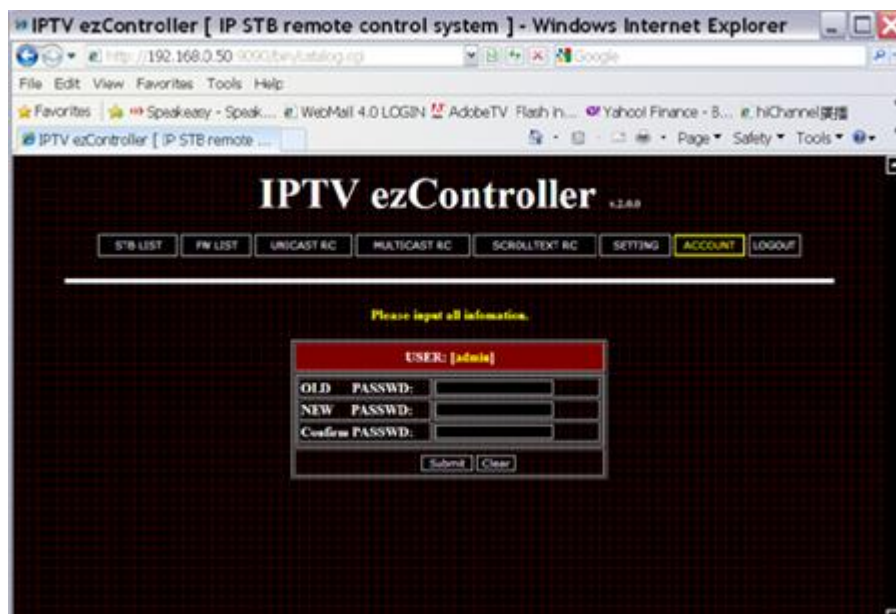
Example: http://your\_host\_ip:port to URL bar on web browser.



Enter account: admin

Enter passwd : admin

You should select option "ACCOUNT" and change your password for security reason. Password character number limit: 10



#### 4. SETTING:

Please select option "SETTING" to change your setting.



##### 4.1 NET DEVICE:

If there are more than one Ethernet card on your server, choose one of which IP address is in the same network as IPTV STBs.

Example:

Assuming there are 2 Ethernet card on your server

eth0 IP: 192.168.1.1 This IP address is not in the same network as IP STBs

eth1 IP: 10.10.10.1 This IP address is in the same network as IP STBs

In this case you should choose eth1 as ezController's net device.

##### 4.2 MULTICAST IP:

The range of available MULTICAST IP: 224.1.0.0 through 239.255.255.255.

##### 4.3 MULTICAST PORT:

Assign first port number for ezController's MULTICAST service.

The 3 consecutive port numbers after this are also used by ezController's multicast service.

Example:

Assuming 9091 as MULTICAST PORT, 9092 9093 9094 are also used by ezController's MULTICAST service.

#### 4.4 UNICAST PORT:

Assign first port number for ezController's UNICAST service.

This port number could not be the same as any port numbers of MULTICAST's 4 port numbers.

If you change the value of MULTICAST IP, MULTICAST PORT or UNICAST PORT in ezController, you have to change value of relative option in IP STB's config file too.

#### 5. SCROLLING TEXT remote control interface:

ezController and IPTV125 STB supports graphical SCROLLING TEXT.

It can scroll any graphical SCROLLING TEXT horizontally on the TV screen.

ezController will show the images that you uploaded on the web page in sequence and add graphical SCROLLING TEXT that state is "run" to the SCROLLING TEXT schedule.

ezController updates SCROLLING TEXT schedule in all IP STBs periodically.

IP STB will receive image and then scroll them according to SCROLLING TEXT schedule.



#### 5.1 Create an image file as a graphical SCROLLING TEXT file.

Image file specification:

Scroll mode : Horizontal scrolling.

Format : jpeg, bmp, png.

Width : maximum 3072 pixel.

Height : maximum 180 pixel.

File Size : No limitation of file size in this version. However, larger file size will slow down network speed and Increase loading of IP STB. Please compress image appropriately.

File Name : English

5.2. Click the button "SCROLLTEXT RC". Enter SCROLLING TEXT remote control interface.

5.3. Select the created image file and then click "upload File" button.

5.4. You will see the image that you uploaded in the table.

5.5. Enter a gap time(secs) between each graphical SCROLLING TEXT files.

If 10 sec were set to gap time, it means:

After last graphical SCROLLING TEXT file disappears on the TV screen for 10 seconds, the next graphical SCROLLING TEXT file will then appear.

5.6. Click the "Edit" button to change option below:

POSITION:

The position of SCROLLING TEXT scrolling on TV screen:

Top: The top of image align the top of TV screen

Middle: The middle of image align the middle of TV screen

Bottom: The bottom of image align the bottom of TV screen

PS: The POSITION setting is exactly right only in 720p.

SPEED:

The speed of SCROLLING TEXT

The higher the number is, the faster the speed of scrolling.

1(slow)->5(fast)

DIREC:

Direction of scrolling text.

Language: English.

Character number limit: 256

STATE:

The state of specific image in SCROLLING TEXT schedule.

run: Join the SCROLLING TEXT schedule, IP STB will receive SCROLLING TEXT image and scroll them in sequence.

idle: Do not join the SCROLLING TEXT schedule, the image will not receive by IP STB.

5.7 If the edit operation is accomplished, click the buttons below:

Save: Save the changes in specific row.

Cancel: Cancel edit operation in specific row.

Delete: Delete image and related data in specific row.

DEL ALL: Delete all images and related data.

## 6. STB list management interface:

You can manage your STB information in STB list management interface. Please click "STB LIST" button to enter STB list management interface.

### 6.1 Manual add STB list:

Input new data to the input text and click "ADD NEW" button.

The IP column is necessary, Group A,B,C,D are defined by user.

### 6.2 Auto Discover STB and add result to the STB list:

Click "Auto Discovery" button and wait for a while, Auto Discovery Function will refresh existing STB list in the Network and fill in the STB list with result.

### 6.3 Update STB information:

Click "Update Info" button and wait for a while, Update Info function will update the latest STATE, MODEL and FW\_VER information from STB.

STATE: This column describes the health of each STB.

alive: STB is on line and running normally.

dead : STB is offline or crashed.

MODEL: The model name of STB.

FW\_VER: The firmware version of STB.

### 6.4 Edit a row in STB list:

Click "Edit" button in the same row that you want to edit.

### 6.5 Save a row in STB list:

Click "Save" button after edit operation is accomplished.

### 6.6 Cancel edit operation:

Click "Cancel" button in the same row that you want to cancel.

#### 6.7 Delete a row in STB list:

Click "Delete" button in the same row that you want to delete.

#### 6.8 Delete all rows in STB list:

Click a "DEL ALL" button.

#### 6.9 Filter the STB list:

You can decide the filter rule and click "Filter" button.

The data conformed the filter rule will be presented.

You can click "Reload" button to show all rows in STB list.

### 7. **FW list management interface:**

Manage firmware information in firmware list management interface.

Click "FW LIST" button to enter firmware list management interface.

#### 7.1 Manual add FW list:

Input new data to the input text and click "ADD NEW" button.

The FW\_VER and UPGRADE\_URL columns are necessary.

FW\_VER: This column describes the firmware version.

UPGRADE\_URL: This column describes where firmware's location and  
What protocol that STB used to upgrade firmware.

Example:

FW\_VER : 1251.0102.0122.6039-4181

UPGRADE\_URL:

ftp://user:passwd@10.10.10.40/XTV121.img

or

http://10.10.10.40/user/XTV121.img

#### 7.2 Edit a row in FW list:

Click "Edit" button in the same row that you want to edit.

#### 7.3 Save a row in FW list:

Click "Save" button after edit operation is accomplished.

#### 7.4 Cancel edit operation:

Click "Cancel" button in the same row that you want to cancel.

#### 7.5 Delete a row in FW list:

Click "Delete" button in the same row that you want to delete.

#### 7.6 Delete all rows in FW list:

Click "DEL ALL" button.

#### 7.7 Filter the FW list:

You can decide the filter rule and click "Filter" button.

The data conformed the filter rule will be presented.

You can click "Reload" button to show all rows in FW list.

### 8. **Unicast remote control interface:**

Send command to specific STB and show the response in the Unicast Remote Control Interface.

Click "UNICAST RC" button to enter unicast remote control interface.

#### 8.1 First select the specific STB that you want to control in the list.

The maximum selected STB number is 256.

If there is no STB information in the STB list, please go to STB list management interface and manual add STB info or use auto discovery function.

If there is no MODEL or FW\_VER information in the list please click "Update Info" button.

8.2 Move your mouse on the command menu label that is on the left side of web page.

You will see the command menu slid into the page.

#### 8.3 Select command in command menu.

##### 8.3.1 Reboot:

Reboot the STB that you selected right away.

##### 8.3.2 Upgrade firmware:

Upgrade firmware of STB that you selected.

This command includes Several Steps:

a. The firmware select box will be presented in the webpage after you click "Upgrade firmware".

If there is no select option in the select box, please go to FW list management interface and add firmware information yourself.

b. Select one firmware version and then click "upgrade" button.

c. The system will popup a upgrade firmware progress window. That will show you the progress and status and error messages of the firmware upgrading.

d. You also can see the upgrade firmware progress on the TV screen of each STB.

You can change upgrade firmware progress web page's URL of STB in the /root/data/config.txt

The default setting is:

stb.ezcontroller.url.fwupg

file:///root/titanium/demo\_page/kumat/upgrade/upgrade\_progress.html

## 9. Multicast remote control interface:

You can send command to a specific STB group in the multicast remote control interface.

Please click "MULTICAST RC" button to enter multicast remote control interface.

9.1. First select the specific STB group that you want to control.

You can group STB by MODEL or FW\_VER.

9.1.1 Select a MODEL or FW\_VER as your group type of filter area.

9.1.2 Input the group scope string to the input box of filter area.

9.1.3 Click "filter" button and then the system will show you the STBs in the group.

If there is no STB information in the STB list, please go to STB list management interface and manual add STB info or use auto discovery function.

If there is no MODEL or FW\_VER information in the list please click "Update Info" button.

9.2 Move your mouse on the command menu label that is on the left side of web page.

You will see the command menu slid into the page.

9.3 Select a command in command menu.

9.3.1 Reboot:

Reboot the STB that you selected right away.

9.3.2 Upgrade firmware:

Upgrade the firmware of STB that you selected.

This command includes Several Steps:

a. The firmware select box will presented in the webpage after you click "Upgrade firmware".

If there is no select option in the select box, please go to FW list management interface and add firmware information yourself.

b. Select one firmware version and then click "upgrade" button.

c. The system will popup a upgrade firmware progress window. That will show you the progress and status and error messages of the firmware upgrading.

d. You also can see the upgrade firmware progress on the TV screen of each STB.

You can change upgrade firmware progress web page's URL of STB in the /root/data/config.txt

The default setting is:

stb.ezcontroller.url.fwupg

file:///root/titanium/demo\_page/kumat/upgrade/upgrade\_progress.html