Overview

This is a major release that addresses many of the issues surrounding getting the Remote Control to work with all the different Slingbox hardware and video source configurations. I've done my best to try to maintain backwards compatibility but depending on your specific circumstances you may need to make changes to your config.ini file and setup an external remote web page configuration file.

As well as remote improvements this version also supports the ability to stream multiple different slingboxes or different slingbox video sources with a single instance of slingbox_server. So, there is no longer a need to run two or three copies of the server to support all your different boxes.

Making Your Remote Webpage Work

Firstly, there is a excellent chance your remote won't work at all unless you're lucky enough to have a configuration that is compatible with my test system. If it doesn't work don't panic, here's what to do:

Make sure the remote is working with the Slingplayer/Slingplayer for Web software.

I've added a mechanism to probe for the proper remote control base configuration. There is a new button 'RT' (Remote Test) on the default web page. When you press the 'RT' button it will send out a "power" IR command. If you see the power go off/on, then make a note of the status line at the bottom of your web page, you'll see something like this:

Status:Testing Remote Code = 2

Test the other buttons power on of course…. If your remote doesn't have a "power" button after you press the RT button you can try other common remote buttons to see if they work. i.e. 0-9 keys.

If all looks good then you can update your config.ini with the discovered information. If the power doesn't go off then hit the RT button again and it will test the next code. Repeat until you find a working code. If you can't find a working code please open an issue.

***** Sending IR codes only works when you have a video stream connected *****

Depending on your video player software and configuration there may be a significant delay between pressing the RT button and seeing the result on your screen, please be patient. Or you can watch the video source on your TV to see the results in real-time.

Updating the config.ini

In the [REMOTE] section add/edit this line

code=xxxx

Where xxx is the Remote Code you noted above.

Once your remote code is set you may notice not all the keys on your remote work due to a mismatch between the "standard" key mapping and what is in the actual remote definition file loaded into your slingbox when the video source was configured.

Note: The default remote configuration is for my Motorola DCX3400M cable box and it's definition is in the supplied remote.txt.

 To help find the codes for those non-working keys you can send a test code to the slingbox.

Prefix the code with a ? and put it in the "Channel" field. i.e. ?35 will send the Guide command. Once you get the correct code update the key entry in your remote include file.

i.e. I had two remotes configured and the DVR and Exit buttons used different codes.

How to pick codes to try?

You can get a list of valid keys for your remote from Sling Player Desktop. Select your slingbox in the Slingbox Directory and hit the edit button. Then /information/IR key codes/key codes. You can compare this list with those in your "remote.txt" and test the missing codes. See the end of this document for a list of "default" key codes. Or, as of V3.02, the keycodes are printed in the logs when you connect to your slingbox. To get the appropriate key codes for your configured source you must add a "VideoSource" entry to your config.ini file. See documentation for VideoSource in the "Multiple Video Sources" section below.

For example, on one of my remotes the DVR button was mapped to "EXTERNAL" and on another it was mapped to "CUSTOM10".

But if you can't get the key code list you're stuck with trial and error. :-(

Once you have the correct key codes, you'll need to save that information is a new remote configuration file specific for your remote. Make a copy of the supplied remote.txt file and save it with a different name i.e. xyz_remote.txt.

Then in the xyz_remote.txt update the key codes in the "buttons=" section. So for instance you've found the proper keycode for 'DVR' is 62 (CUSTOM10) then change

'DVR' : 23 -→ 'DVR' : 62

Once you've finished updating your custom remote file, you need to tell the server where to find it. In the [REMOTE] section of your config.ini file add/edit the include entry

```
include=xyz_remote.txt
```

The include= can specify a complete file path if it's not co-resident with the location of your slingbox_server. So, again for example include=C:\Slingbox\Configfiles\xyz_remote.txt

Making fancy web pages

There are now some examples in the custom remotes folder on GitHub (THX Mover480).

You can now apply custom style definitions to individual buttons. In the style section (style=) of your remote add a new definition i.e.

```
.red-button {
    border: none;
    color: white;
    background-color: red;
    padding: 0px 20px;
    text-align: center;
    text-decoration: none;
    display: inline-block;
    font-size: 70px;
    margin: 4px 2px;
    cursor: pointer;
}
```

Then in the buttons section change the button definition like so:

'1' : 9 ---> '1' : 9 : red-button

Here's a style example for a green round button.

```
.round {
    border: none;
    color: white;
    background-color: green;
    padding: 0px 20px;
    text-align: center;
    text-decoration: none;
```

```
        display: inline-block;
        font-size: 70px;
        margin: 4px 2px;
        cursor: pointer;
        border-radius: 50%;
    }
```

The "border-radius: 50%;" line is what makes it round. These style definitions are standard HTML, do some googling to get some idea about what you can do. Also have a look in the "CustomRemotes" folder for some examples. (THX Mover480)

When I have multiple remotes configured, I've been adding a <h1> BoxName</h1> to the remote configuration file to help avoid confusion. See the examples.

Have you got more than one slingbox on your network?

You can now pass in a list of config file on the command line so you only need one copy of slingbox_server running on you host.

i.e. python3.9.exe slingbox_server.py m1_config.ini 500_config.ini   solo_config.ini

Notes:

Make sure the port numbers in the [SERVER] section of the config.ini's are different and separated by at least 2. i.e. 8080, 8082, 8084 to avoid collisions when the server tries to bind to it's listening ports.

To support this the "keys.dat" filename is now based on server port number from the config.ini file. i.e. 8080.dat

To help make heads or tails from the logs you can add a "name=" line to the [SLINGBOX] section of your config.ini. The logs for this slingbox will have the name included.

Does you slingbox have multiple video sources connected and configured?

You can select in the config.ni file the video source to use when the server starts up. In the [SLINGBOX] section of the config.ini file add a line

VideoSource = x

Where VideoSource is one of 0, 1, 2, 3. Depending on your hardware, it corresponds to one of Composite, Component, HDMI or coax/tuner inputs. This is what I think they are:

ProHD   0=coax 1=composite 2=s-video 3=component

Solo   0=composite 1=svideo 2=component
350/500   0=composite 1=component, 2=HDMI
M1   0=composite 1=component

If you don't specify it will default to the last selected input. So, if you only have one video source connected you don't need to mess with this.

You can keep a config file for each input and specify it on the command line when starting the server (see above) to specify individual video parameters and remote control definitions files. i.e. component_config.ini, hdmi_config.ini, tuner.config.ini.

Heads up. The slingbox only supports one video stream at a time so if you startup a new HTTP streaming session for a different video source the code will shutdown any other running streams to the old video source.

Non Static external IP address

So you want to connect to your local server when your away from your house. If you have a static IP address or have signed up with a service provider like dyndns your already to go just point your media player to your external IP address or dynamic domain name. i.e myserver.dyndns.org:server_port number. Make sure to add a port map on your router to map the configured server_port from the Internet to your host that is running the slingbox_server code.

But if you don't and are not inclined to fork over some cash to a service provider this is what you can do.

I've put together a small server running on my AWS instance that will accept slingbox registration messages from your local server and cache that info in the cloud so you can locate it easily. There are a few things you need to do:

1) In your config.ini file for your slingbox in the [SLINGBOX] section add a "finderid=" line where the finderid is the 32 character string from the login info you got when you looked up your password. See the readme. i.e. finderid=BAD95DAED609364C8204F2BC5FBDC363
2) Make sure you have the server_port mapped properly in your router. See above.
3) On your media streamer use this URL http://sbfinder.dazoo.net:54321/slingbox/"the 32 character finderid" from step 1. i.e. http://sbserver.dazoo.net:54321/slingbox/ BAD95DAED609364C8204F2BC5FBDC363.

When the server sees this connection request it looks up your local servers' IP address and port number from the information it got when your local server registered your slingbox(s) and returns an "HTTP 302 Temporarily Moved" message to your media player and then your media player will connect to the new address. http://your_external_ip_address:server_port/slingbox.

Other Stuff

I've improved some error handling. If the slingbox session fails to start due to a "bad" keys.dat it will reload a new file the next time you try to connect your client. If it fails two times in a row, then there is something more seriously wrong. Open an issue.

Appendix

Defined KEY CODES. YMMV

INVALID	0
POWER	1
POWERON	2
POWEROFF	3
CHANNELUP	4
CHANNELDOW	5
VOLUMEUP	6
VOLUMEDOWN	7
MUTE	8
NUM1	9
NUM2	10
NUM3	11
NUM4	12
NUM5	13
NUM6	14
NUM7	15
NUM8	16
NUM9	17
NUM0	18
ENTER	19
HUNDRED	20
LASTCHANNEL	21
TVVCR	22
EXTERNAL	23
PLAY	24
STOP	25
PAUSE	26
REWIND	27
FASTFORWARD	28

```
RECORD          29
SKIPFORWARD 30
SKIPBACK        31
LIVE            32
MENU            33
SETUP           34
GUIDE           35
CANCEL          36
EXIT            37
UP              38
DOWN            39
LEFT            40
RIGHT           41
SELECT          42
PAGEUP          43
PAGEDOWN    44
FAVORITE        45
INFO            46
FORMAT          47
SUBTITLE        48
SURROUND    49
SLOW             50
EJECT           51
RANDOM          52
PIP             53
PIPFORMAT    54
PIPFREEZE       55
PIPSWAP         56
PIPMOVE         57
PIPSOURCE       58
PIPCHANUP       59
PIPCHANDOWN     60
PIPMULTI        61
CUSTOM10        62
CUSTOM11        63
CUSTOM12        64
CUSTOM13        65
CUSTOM14        66
```

CUSTOM15	67
CUSTOM16	68
CUSTOM17	69
CUSTOM18	70
CUSTOM19	71
CUSTOM20	72
CUSTOM21	73
RED	74
GREEN	75
YELLOW	76
BLUE	77
WHITE	78
CUSTOM27	79
CUSTOM28	80
CUSTOM29	81