

## Dreambox RQCS & RCAMD How to Guide

Information in this guide is written for educational purpose that you may use to learn. Please use at your own risk.

You can run server and client on Dreambox. I will split this into 3 sections: Setup of the Dreambox, Server (RQCS) and Client (RQCAMD). Follow this step by step and you should have picture. You don't have to follow all 3 sections in order. For example, if you don't want to install RQCS on the Dreambox, then you can skip that section after Setup of Dreambox and go straight to RQCAMD setup. In that case, you will be connecting external server.

### Dreambox Setup:

There are multiple images you could on the Dreambox. They all have different menu and functions. Best one I like is Pli and close second is DSM. In this guide, I will be talking about Pli image only. Using DSM is very similar though. Other images may work, but I have not tested them.

#### Software Needed:

1. DreamUp
2. Dream Control Center
3. DreamBox Edit

#### Other Files needed:

1. Pli Image
2. Rqcs 1.06
3. Rqcamd 1.19 (need to download rqcamd-1.19-packages.tar not the binaries)
4. Factory Flash for DreamBox. (if Needed)
5. Blank Channel List (legacy or dishpro)

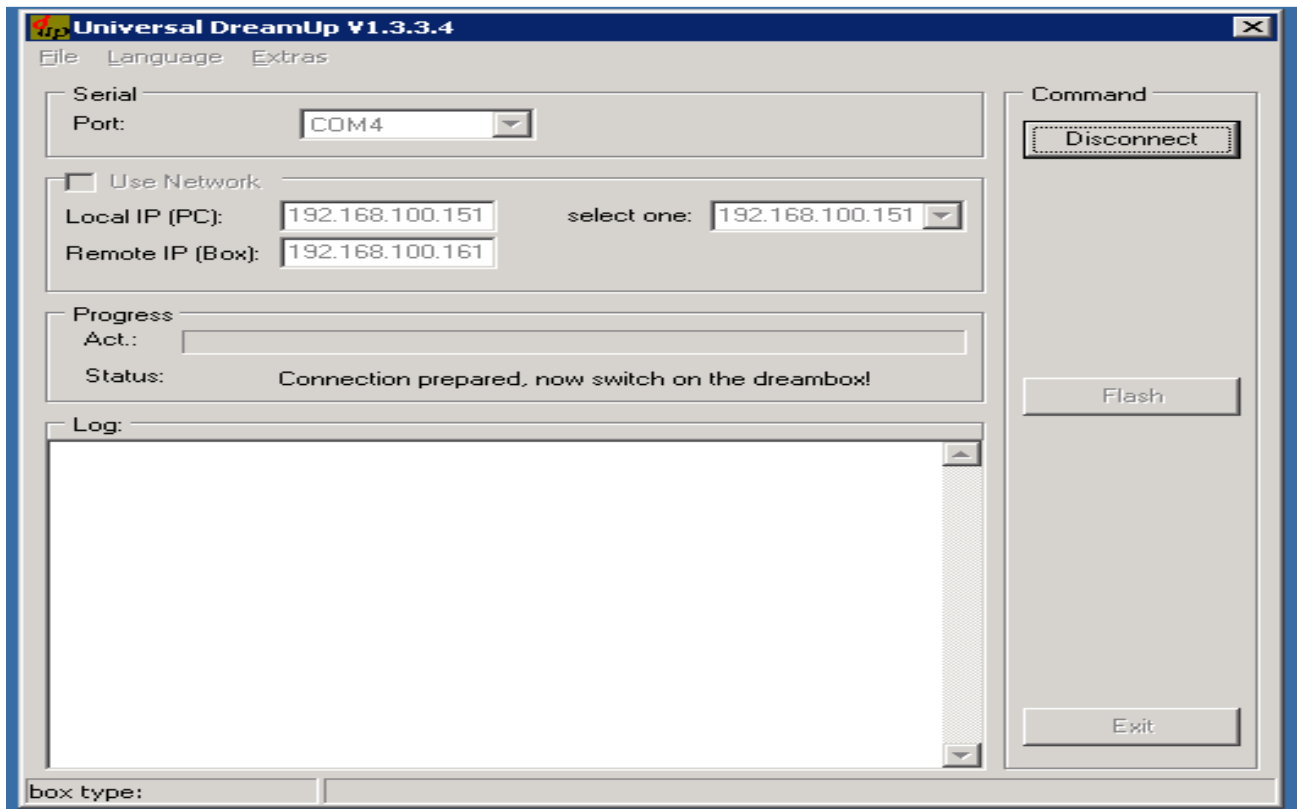
#### Hardware needed:

1. Nullmodem cable

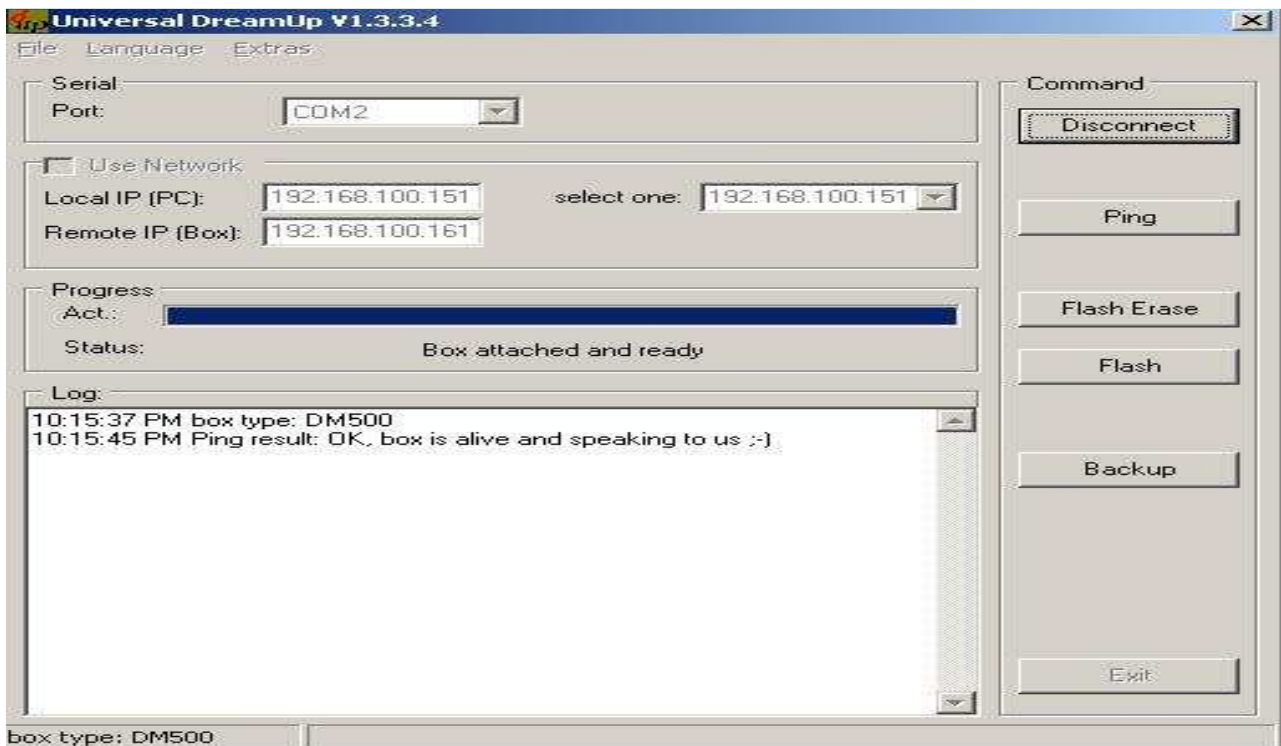
Download these software and save them on Desktop. Unzip all the files into separate folders. First thing we need to do is put Pli image on the box.

So connect NullModem cable to Dreambox and your computer. Don't plug in box yet.

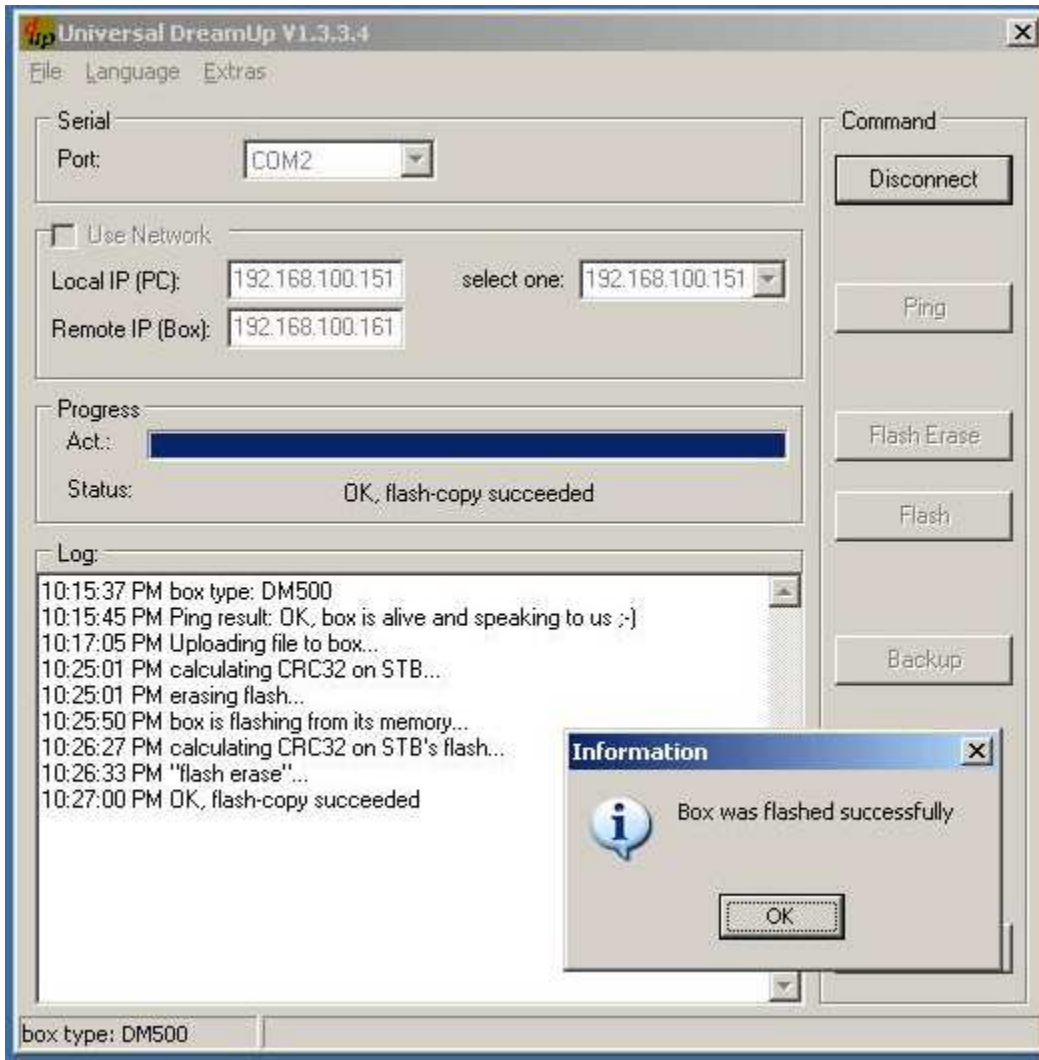
1. Start up DreamUp software, select com port on which the dreambox is connected, and press Connect. You will see results as picture 1.
2. Plug in the Dreambox, and you will see the DreamUp detects the box and then process takes about 1 mintue and then it tells you that dreambox is alive and ready for programming. (See Picture 2)
3. Click Flash and select the Pli image you have download (folder should be on the Desktop). It will ask if you would to do Flash Erase, select Yes.
4. This process will take about 9-10 minutes (You could use network to make it faster, but that's another guide ☺)
5. Once the image is programmed, pop up will show that is complete (Picture 3)



Picture 1



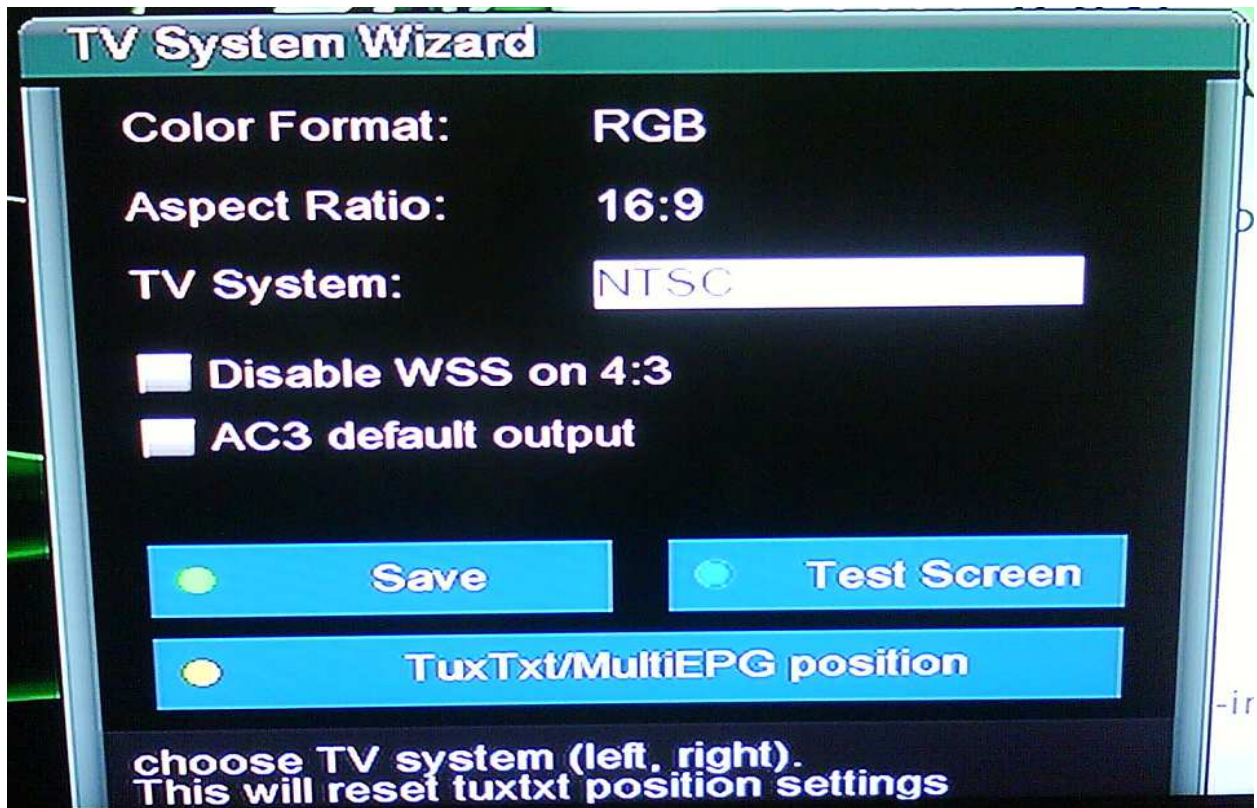
Picture 2



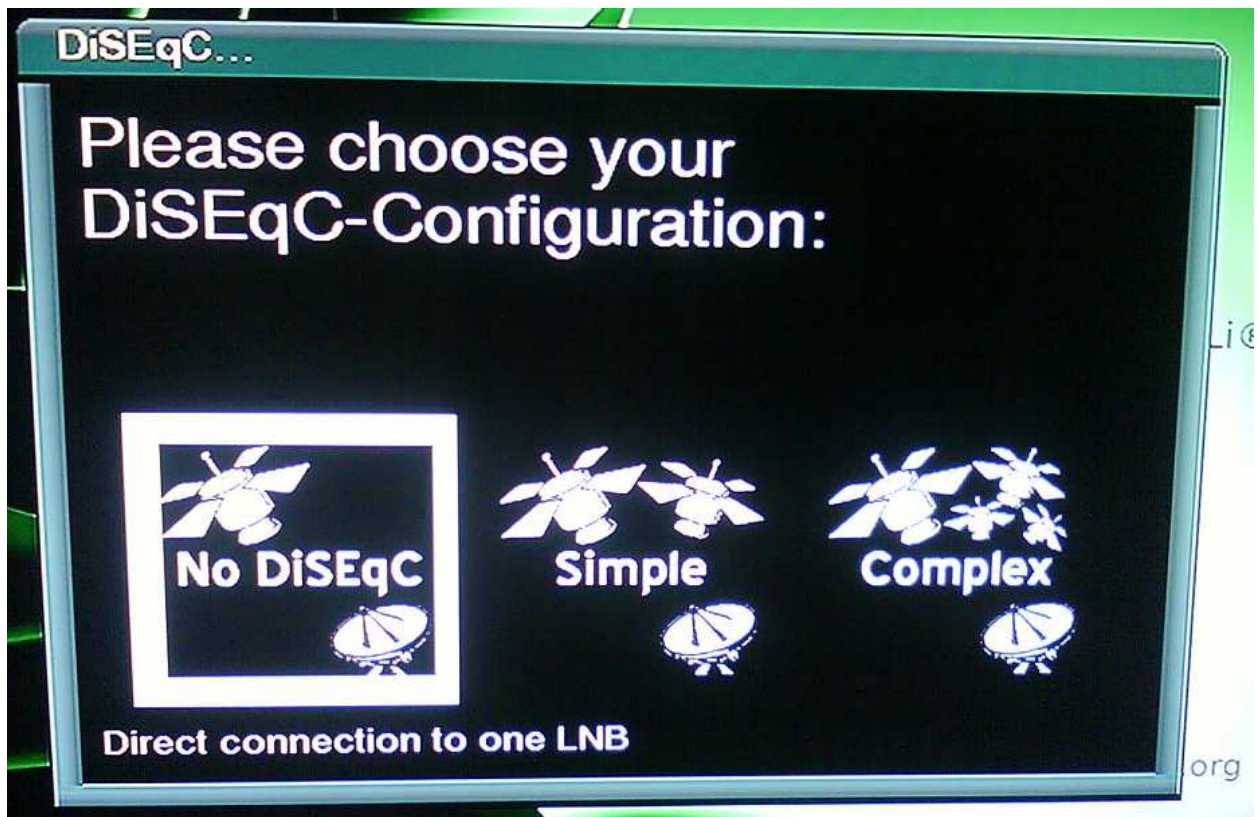
Picture 3

At this time, click on okay on the Pop Up box. Disconnect from the Dreambox. Unplug the power from the Dreambox. Disconnect the nullmodem cable. RePlug the the power and let it boot.

1. It will boot with black and white image of Pli Jade Green background with "TV System Wizard". It might come with picture scrolling down because it boots as PAL video system. If this is true for you, then your TV doesn't support PAL system, Then you need to follow these steps exactly because you can't see the "TV System Wizard" Box correctly. To fix this :  
Press down twice and Press right 3 times and Image will stabilize. Save it. (Picture 4)
2. Next Screen will ask you choose the language, select English (or what ever you prefer).
3. Select your Time Zone and press Save.
4. After few moment, Next screen will ask you select your Diseqc Configuration (Picture 5). At this point, we are not going to configure it, so press Exit twice. You will have black screen.



Picture 4



Picture 5

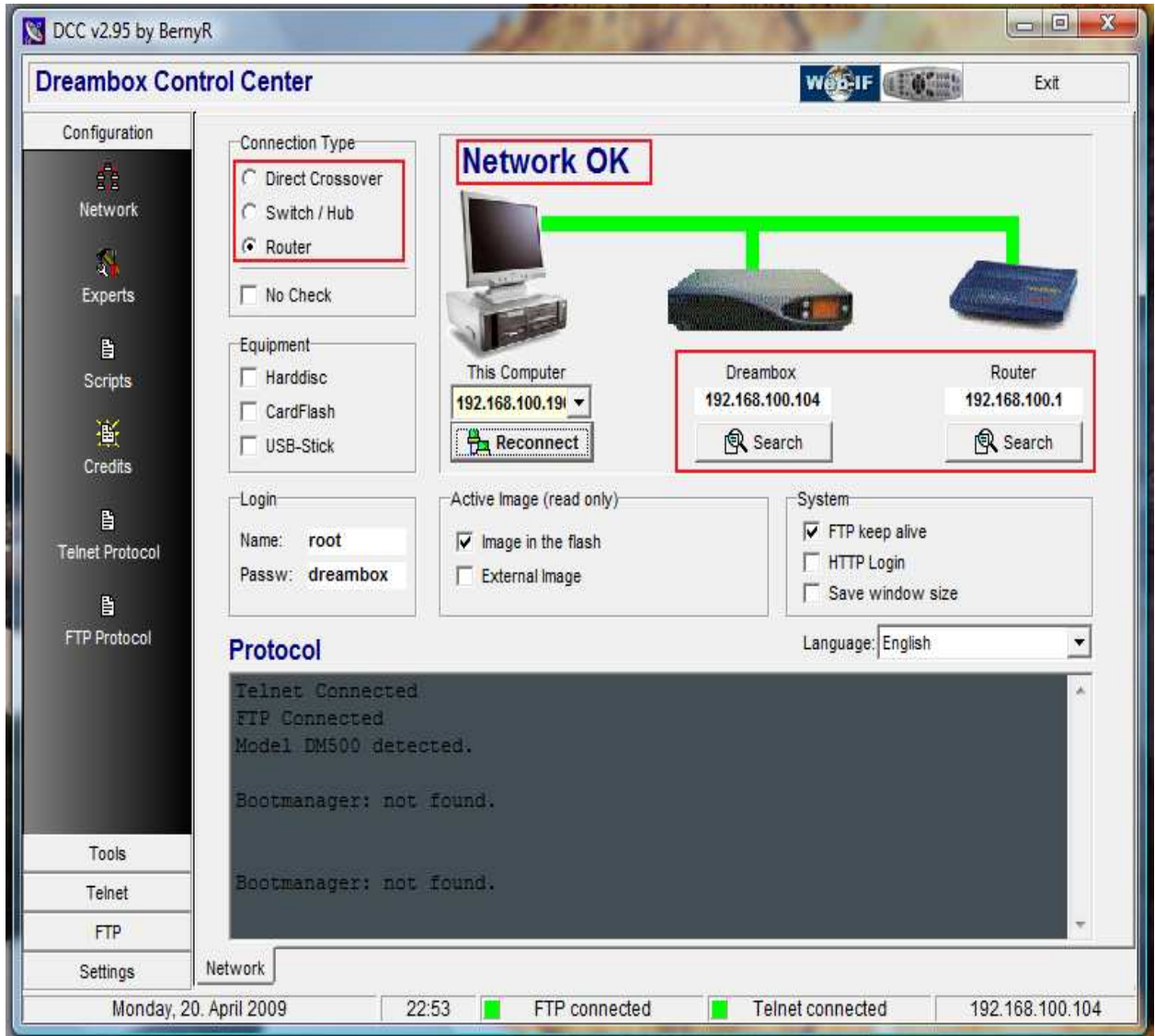
5. Connect the DreamBox to your TV, Satellite cable and Network cable connected to your router (or if you don't have a router, you can use cross over cable to connect directly to your computer). Once the Dreambox has booted, you need to find out its IP address. To do that, Press the following buttons, **Blue Button > System Settings > Network** and write down the IP address of the box.
6. Install DreamBox Edit software on your computer. Once installed, fire up the software.
  - a. Click on Options to update the correct IP of the Dreambox
  - b. Under Advance Tab, check Display "reboot option" field and save.
  - c. Click on Open and find the Blank Channel List (Legacy or DishPro)
  - d. Once the list ans loaded, Press FTP and click on Send Files to DreamBox.
  - e. Once the transfer is complete, Press Reboot DreamBox.
7. Goto Menu by press Blue Button
  - a. Goto Satellite and Transponders > Satellite Configuration
    - i. Select the drop down menu on top and select non-standard userdefined configuration.
    - ii. Select all the satellites you have buy press Yellow button to Add.
    - iii. Then go through each satellite do the following for each:
      1. Highlight the LNB section and Press Enter
        - a. Select LNB # (i.e. 119 – LNB 0, 118 – LNB 1, 110 –LNB 2)
        - b. Enter LOF/H for the satellite
        - c. Press Blue button.
        - d. Select Diseqc Mode as Version 1.0 (if you only have single satellite, then select None.
        - e. Select the appropriate Diseqc Parameter depending upon what satellite you have.
          - A/A for Port 1 of Diseqc A/B for Port 2 of Diseqc
          - B/A for Port 3 of Diseqc B/B for Port 4 of Diseqc
        - f. Press Save (See picture 6 for reference)
        - g. Exit to Satellite and transponders menu and select Automatic Transponder Scan (Or you could upload channels list).
          - i. Scan All the satellites.
          - ii. Exit all the way out.

At this time, the Dreambox has been flashed with pli image and it ready for next step.

## RQCS Setup

For this step, you need to have RQCS 1.06 and DCC (Dreambox Control Center).

1. Then Fire up DreamUp Software (Picture 6). Select the appropriate connection Type. Fill in the IP address of the Dreambox and Router (if applicable). Once you filled out the correct IP addresses, Press Reconnect. You will see Green line across all the way. If you don't have green line for particular machine (Dreambox or router), Re-check the IP address and ReConnect. When all have connected, you will see Network OK on top.



Picture 6

2. Once everything is connected and you get lines across the board, Click on the FTP (Lower Left Corner). You will get typical FTP client screen. On the left is DreamBox and on the right is the Computer.

3. Now you will need to load the RQCS files to the DreamBox. Goto the folder where you have download the latest version of RQCS (1.06 at the time of writing). Unzip the tar file and you will 6 files there, you only need to use 2 of them (rqcs.ppc and rqcs.conf). Delete remaining files. Rename the rqcs.ppc to just "rqcs". Edit the rqcs.conf per your setup. In fact, you only need to update few fields in the config file, rest you can leave it as is. You need to update the following fields:

- a. Under Session Negotiation, you need to fill the box\_key if your G3 card uses DT08. If not, then you can do 2 things:
  - a. You need to provide the box\_key and DT06
  - b. Or you can provide SK.

*Note : Other fields can be used, you can play with them if you wish*

- b. protocol\_server\_port=10000 <- You can leave this as default or change it your liking.
- c. protocol\_server\_newcamd\_des\_key=0102030405060708091011121314 <- You can leave this as default or change it your liking.
- d. Add users accounts to your server under the protocol\_server\_users field. Each username format is "username:password" i.e.

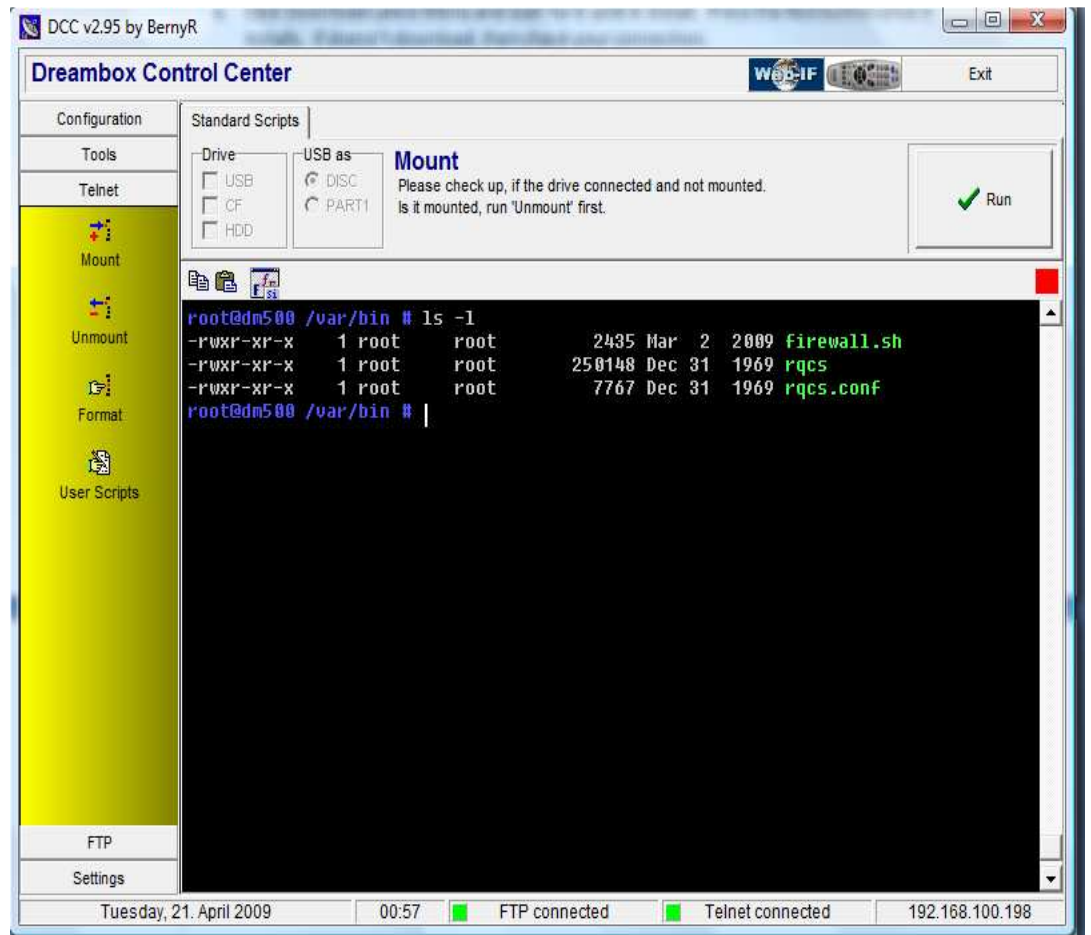
```
protocol_server_users=dummy:dummy|dummy_2:dummy_2|dummy_3:dummy_3
```

First username is considered the Super User. It is only user that has the rights to pass the EMM to server. All EMMs from any other user will be rejected by the server.

- e. protocol\_server\_max\_active\_users=0 <- You can use this field to limit the number of users that can have concurrent connection to server. By default it is disabled.

4. Now that you configured rqcs.conf, time to transfer the files, locate the rqcs and rqcs.conf in the computer side of the FTP client and transferred both files to /var/bin folder of the dreambox.
5. Press Blue button on the Remote, and goto Software Management Menu.
  - a. Click Download Latest Menu and wait for it until it install. Press the Red button once it installs. If doesn't download, then check your connection.
  - b. From Software Mangement Menu, Select Remove Software..
    - i. Remove Ccam Config and Ccam Soft Cam (You don't need them as you will be using RQCS and RQCAMD).
    - ii. Now create a text file and write rqcs in it and save it as "rqcs" without any extension.
    - iii. Locate this file in the Computer side in the FTP client and transfer it to /var/etc/plimgr/cardservers (This will integrate the RQCS Server with Pli Image and it will show in appropriate places. If you miss this step, RQCS may not show up under CardServers.
  - c. Exit all the way and Reboot Dreambox (Menu > Shutdown > Reboot Now)
6. Press Blue button and goto SoftCam Setup
  - a. Under Cardserver, select RQCS under dropdown menu. Press blue button to save and Red button to restart the card server.

- b. At this time RQCS should be running. If you have any doubts whether it started or not, you could check it by Telenet.
- i. Click on Telenet and type “cd /var/bin” and then type ls -l (Picture 7)

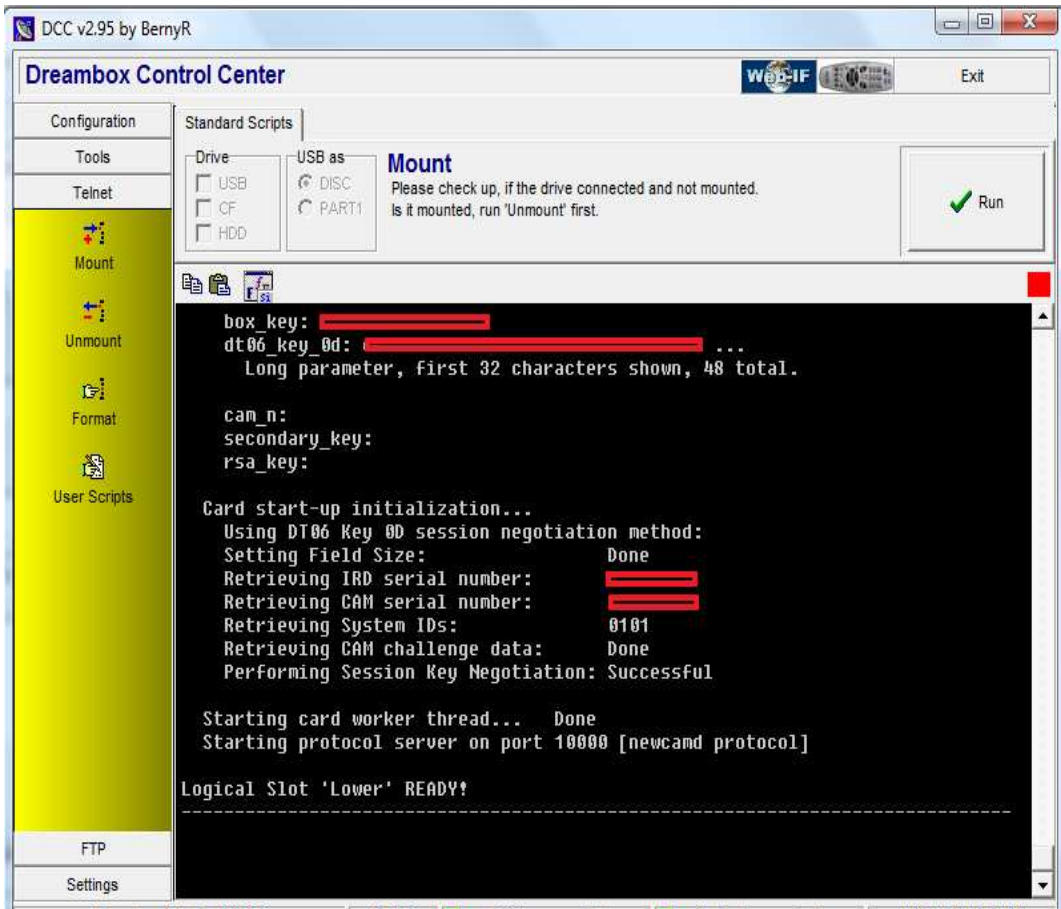


Picture 7

- ii. There should be 3 files there, all of the should be green. If rqcs or rqcs.conf is not green, then type `chmod 755 rqcs*` and press Enter and retype `ls -l` to see if they are green now.
- iii. Then type `rqcs` & Press Enter and you should see something similar to Picture 8 on next page.
- iv. If you see an error of some sort, then you need to check `rqcs.conf` to make sure Session Negotiation section has the correct information. If you are unable to run `rqcs`, mostly likely one instance is already running. To remedy this situation, type ***killall -9 rqcs*** and rerun `rqcs` command.

At this time your RQCS server is running! Now to move on the next step.





Picture 8

## RQCAMD Setup

Now to third section of this guide, RQCAMD installation on the Dreambox. This is similar to RQCS installation. You will need the TV connected to Dreambox as well as the Network cable because you will be using the DCC software to transfer files to DreamBox.

Locate the already downloaded latest version of RQCAMD (1.19 at the time of writing). Now remember you should have downloaded the package tar file not the binary. Unzip the tar file to a folder, it will have 8 files inside for different boxes and different images, one we need is called **rqcamd-1.19-PLi-PPC.tar.gz** (Unzip this file to separate folder as we will need to update information in the rqcamd.conf)

1. Fire up the DCC software if you have closed it. ReConnect the software to Dreambox. Goto FTP. Locate the *rqcamd-1.19-PLi-PPC.tar.gz* file in the computer side in FTP client. Transfer the tar file into /tmp folder of the dreambox.
2. Once you have transferred the file, Press Blue button on the remote.
  - a. Select Software Management
  - b. Goto Manual Install
    - i. Select *rqcamd-1.19-PLi-PPC.tar.gz* and press OK. It will install RQCAMD on the dreambox as well as intergrate it with Pli image so you don't have to manually do it. Once finished installing, Press Red Button to close. Exit all the way
    - ii. Pretty much all the files come with proper permissions, but if you like to make sure all the files have right permission then follow these steps exactly:
      1. Goto Telnet in the DCC.
      2. Type each line and press Enter.

```
chmod 755 /var/bin/rqcamd
chmod 644 /var/keys/rqcamd.conf
chmod 644 /var/keys/Autoupdate.Key
chmod 644 /var/scce/EEP01_102.bin
chmod 644 /var/scce/EEP08_102.bin
chmod 644 /var/scce/ROM102.bin
```
3. Now find the folder where you extracted the *rqcamd-1.19-PLi-PPC.tar.gz* and goto the keys folder. Use text editor to edit *rqcamd.conf* file. You would need to update the following fields per your setup:
  - a. `webif=1` <- Change this to 0. I have found this sometimes has issues so I disable it as I don't need to use *rqcamd* via browser anyway.
  - b. `caid_priorities=1801|1816` <- If you using N3 card, change this to 1816|1801
  - c. `decoder_type=0` <- Change this to 1 to use the card server instead of internal softcam.
  - d. `card_server_url_0=` <- Put the proper url of the RQCS with username and des key.

***newcamd://dummy:dummy@127.0.0.1:10000/0102030405060708091011121314***

***Note: RQCS could internal running on the Dreambox or External somewhere else.***

- e. `process_emm_s=0` <-Change this to 1 to pass the EMM S to RQCS.
- f. `process_emm_u=0` <-Change this to 1 to pass the EMM S to RQCS.

- g. If you are using the internal softcam for N2, then you can configure the “SoftCam Server Setting”. Besure to change the decoder\_type to 0 to use internal softcam.
    - h. Save the rqcamd.conf file.
    - i. Create an empty file called **Keylist.txt** and save it in same place as rqcamd.conf(Rqcamd supposedly creates it by it self but I do it anyway)
  4. Now on DCC, locate the rqcamd.conf and Keylist.txt in the Computer Side and transfer both files to /var/keys folder. Overwrite the files if DCC prompts you for it.
  5. Press blue button and goto SoftCam Setup
    - a. Select Rqcamd-1.19 in the Default SoftCam dropdown menu.
    - b. Press Blue Button to Save.
    - c. Exit all the way and Reboot the box.
  6. Once the box reboots, you will see an Extenal Message saying rqcamd-1.19 has started. The message will dissappear in few seconds and by this time you should picture if everything went correctly.

I hope this helps you folks!

Enjoy!

fta\_dude

PS. Files mentioned in this guide are available from various sites, but here is one that has it.

[www.db4na.net](http://www.db4na.net)

g.