



bitcontrol® streamapes for tuxbox software

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Glossar

<i>Begriff</i>	<i>Erklärung</i>

1 Introduction

The modified **bitcontrol® streampes** software solves a problem of older the *streampes* firmware in the set top boxes with Linux as operating system (“tuxbox” based):

By the transmission of an MPEG-2 video stream from a set top box with Linux „tuxbox“- firmware (e.g. DreamBox, d-Box, etc.) to a Windows PC with **bitcontrol®** multimedia software (e.g. **bitcontrol® Digital TV Link**) the appropriate *streampes* program starts on the set top box.

In the older *streampes* version („tuxbox“- version 2.4.2.0 from 18.1.2003), when the channel is switched then a new *streampes inetd-session* is launched on the set top box without first stopping the currently running one, which is no longer required.

The consequence of this is an accumulation of *streampes inetd-sessions* and an overload of the set top box, thus streaming isn't possible any more. From the point of view of a user it seems that the set top box has hung up.

The problem can be solved manually by using the kill command “*killall streampes*” for ending the *streampes inetd-sessions* from within a telnet session.

Affected devices:

- Dreambox 7000 (firmware version 1.0.9 and lower)
- Dreambox 500 (firmware version 1.0.8 and lower)
- d-Box II with different „tuxbox“ images

2 Product description

The modified **bitcontrol® streampes** software takes care of a correct shutdown of the *streampes inetd-session* in a set top box with „tuxbox“- software (version 2.4.2.0) when switching the channel. So the overload / hang-up of the set top box caused by accumulated *streampes inetd-sessions* will be avoided.

The source code of the modified **bitcontrol® streampes** software is available under www.bitcontrol.com. Experienced „tuxbox“- developers can integrate this variation in their new STB image directly.

3 Install and uninstall process using iPKG manager

The modified **bitcontrol® streampes** software is available as iPKG package. The program **IPkg** is a simple package manager for installing and managing packages. The majority of set top boxes with Linux as operating system provides the mentioned program as onscreen plug-in (Itsy Package Management System).

3.1 Steps of installation

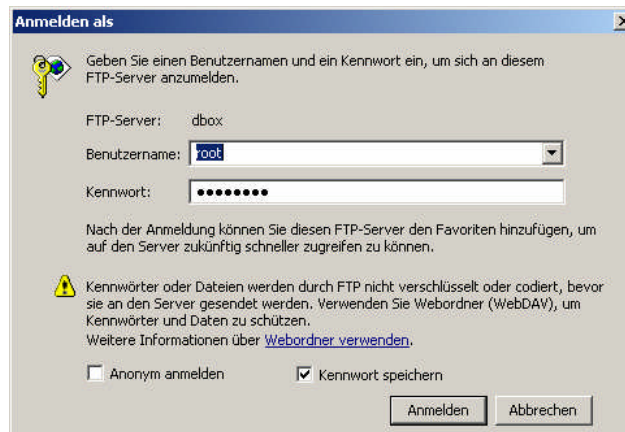
Attention: An incorrect installation of **bitcontrol® streampes** software can make the set top box unusable. If you not sure, please contact the producer of the set top box or somebody, who is familiar with the installation of „tuxbox“- software on set top boxes.

To install **bitcontrol® streampes** software, follow described steps!

Installation on Dreambox (Host: Windows-XP):

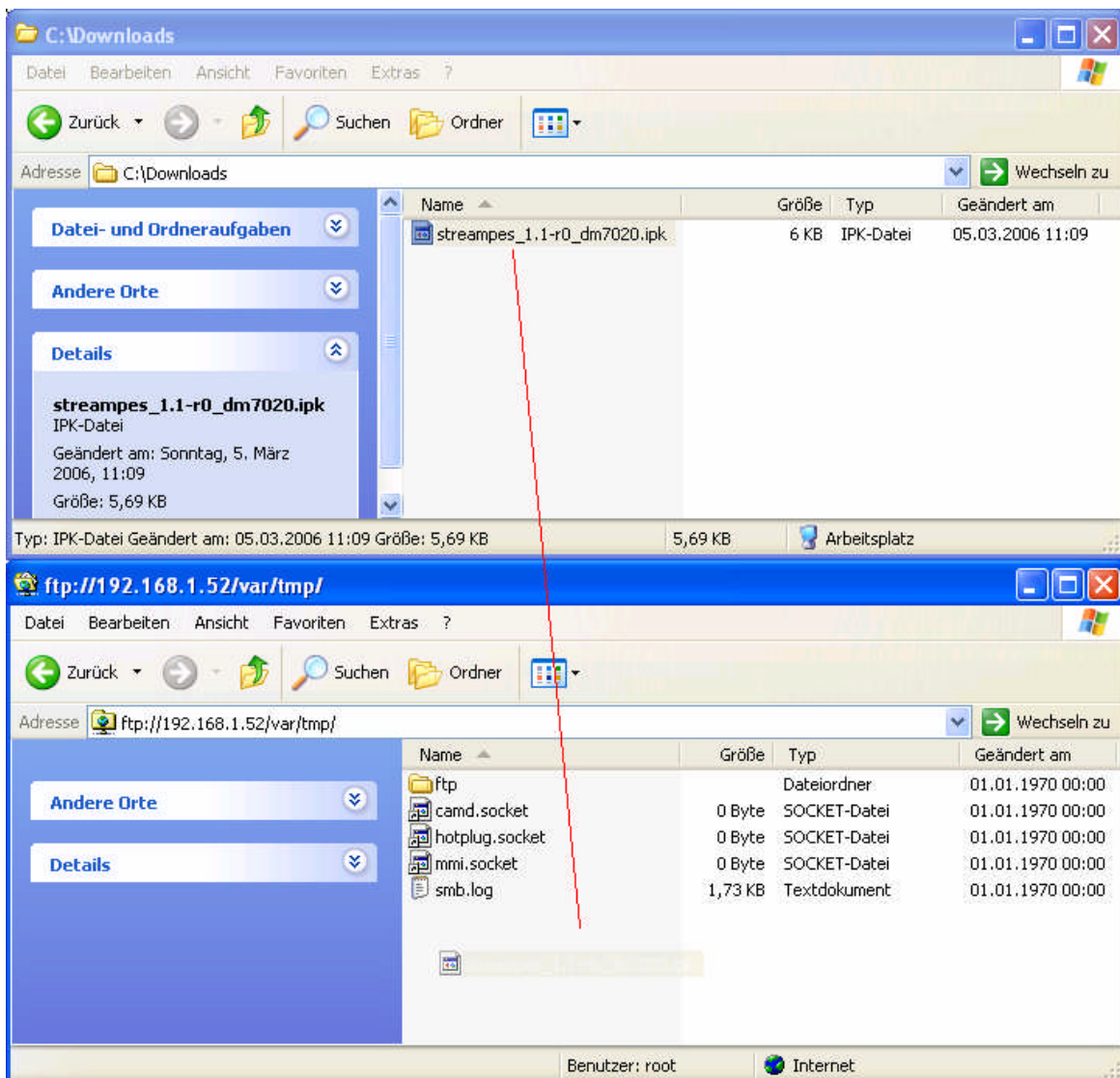
1. Transmission of installation packages on Dreambox using FTP

- Connect your set top box with your PC by using FTP. Log in as user **root**.



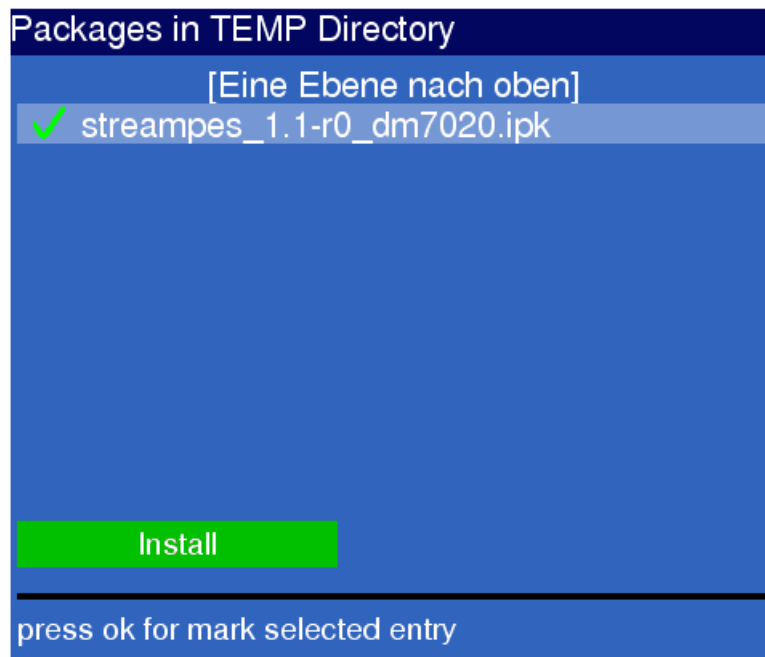
Picture 1: FTP connection and login

- Change directory to `/tmp` and copy in the downloaded ipkg-file.



Picture 2: Directory change and file copy

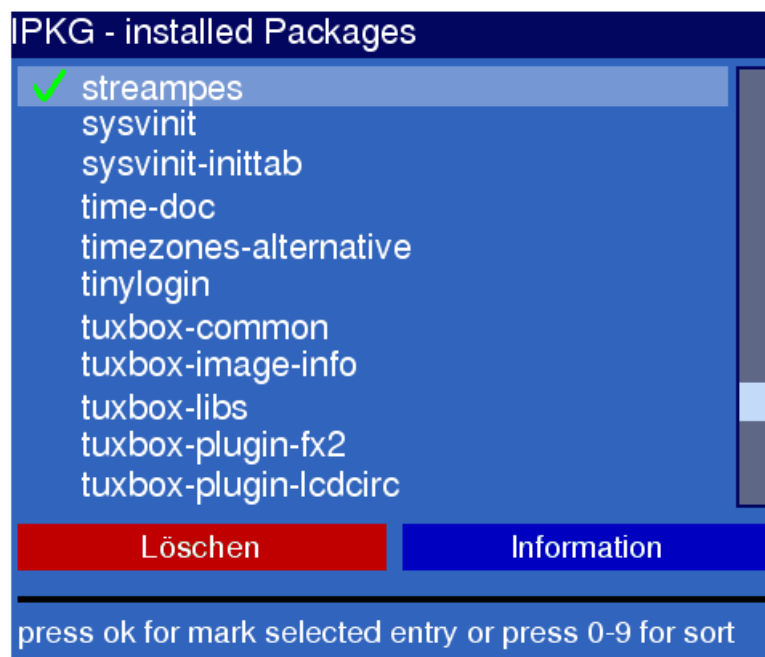
2. Access the plug-in **Itsy Package Management System** on the set top box (blue button on remote-control) and select the menu item **available Packages [Feed: TEMP]**.
3. Mark the packages you want to install by using the „OK“- button and install them (green button).



Picture 3: Package installation on set top box

3.2 Steps of the uninstall process

1. Access the plugin **Itsy Package Management System** on the set top box (blue button on remote-control) and select the menu item **installed Packages**.
4. Mark the packages you want to uninstall by using the „OK“- button and install them (red button).



Picture 4: Uninstall packages of the set top box

4 Install and uninstall process using FTP / telnet

The modified **bitcontrol® streampes** software is also available as sPKG package. sPKG is a shell-script-file with the installation package as addition. The sPKG- file is executable directly from Dreambox console (telnet). The package will be installed then. Restart the Dreambox isn't necessary.

4.1 Steps of installation

Attention: An incorrect Installation of **bitcontrol® streampes** software can make the set top box unusable. If you not sure, please contact the producer of the set top box or somebody, who is familiar with the installation of „tuxbox“- software on set top boxes.

1. Transmission of installation packages on Dreambox using FTP

- Connect your set top box with your PC by using FTP. Log in as user **root**.
- Change directory to **/tmp** and copy in the downloaded spkg -file.

Example for Dreambox 500: ftp > **cd /tmp**
 ftp > **get streampes_1.1-r0_dm500.spk**

2. Installation of the transmitted package on Dreambox

- Enter the command „**telnet <dbox>**“ in the command line (e.g. telnet 192.168.1.50)
- Log in as user **root**.
- Change directory using the command „**cd /tmp**“ to **/tmp** and enter the command:

```
/tmp > chmod a+x *.spk
```

- Select the installation package (sPackages are shell-scripts for installation):

```
/tmp .> ./streampes_1.1-r0_dmXXXX.spk
```

4.2 Steps of the uninstall process

- Enter the command „**telnet <dbox>**“ in the command line
- Log in as user **root**.
- On Dreambox **dm7020**:
 - Change directory to **/usr/lib/ipkg/info**
- On Dreamboxen **dm500, dm7000**:
 - Change directory to **/var/lib/ipkg/info**
- Select the uninstall-script:

```
/var/lib/ipkg/info.> ./ streampes.uninstall
```

5 Manual install und uninstall process on DM500 and DM7000

The modified **bitcontrol® streampes** software is available as streampesxxx.tgz package too.

5.1 Steps of installation

Attention: An incorrect Installation of **bitcontrol® streampes** software can make the set top box unusable. If you not sure, please contact the producer of the set top box or somebody, who is familiar with the installation of „tuxbox“- software on set top boxes.

Transmit the **streampes_x.x-rx_dm500.tgz** file to the Dreambox by using FTP and unpack the file in the directory **/tmp**:

```
# cd /tmp
# tar -zxvf streampes_x.x-rx_dm500.tgz
```

Make a new directory called **/var/sbin** and copy the **/tmp/streampes** file to this place.

```
# mkdir /var/sbin
# cp /tmp/streampes /var/sbin
```

Create the file **/var/etc/inetd.conf**.

If you didn't change the default firmware, copy the file **/tmp/inetd.conf** to **/var/etc/inetd.conf**.

```
# cp /tmp/inetd.conf /var/etc/inetd.conf
```

OR

If you work with a modified firmware, change the file **inetd.conf** by hand. For this copy the file **/etc/inetd.conf** to **/var/etc/inetd.conf**.

```
# cp /etc/inetd.conf /var/etc/inetd.conf
```

Open the file **var/etc/inetd.conf** in an editor (e.g. vi) and change the line

streampes stream tcp nowait root /sbin/streampes streampes

into

streampes stream tcp nowait root /var/sbin/streampes streampes.

Create the file **/var/etc/init**:

If you didn't change the default firmware, copy the file **/tmp/init** to **/var/etc**.

```
# cp /tmp/init /var/etc
```

OR

If you work with a modified firmware, create the file **/var/etc/init** with the following content, or add the content to the file **/var/etc/init**.

```
killall -q inetd
killall -q streampes
inetd /var/etc/inetd.conf
```

Restart the set top box.