



EtherneTV-STB Set-Top Box

STB v3.7.1 Release Notes



VBrick Systems, Inc.
12 Beaumont Road
Wallingford, Connecticut 06492

August 10, 2005
4410-0096-0003

Copyright

© 2005 VBrick Systems, Inc. All rights reserved.
12 Beaumont Road
Wallingford, Connecticut 06492 USA
www.VBrick.com

This publication contains confidential, proprietary, and trade secret information. No part of this document may be copied, photocopied, reproduced, translated, or reduced to any machine-readable or electronic format without prior written permission from VBrick. Information in this document is subject to change without notice and VBrick Systems assumes no responsibility or liability for any errors or inaccuracies. VBrick, VBrick Systems, the VBrick logo, StreamPlayer, StreamPlayer II, and StreamPlayer Plus are trademarks or registered trademarks in the United States and other countries. All other products or services mentioned in this document are identified by the trademarks, service marks, or product names as designated by the companies who market those products. Inquiries should be made directly to those companies. This document may also have links to third-party web pages that are beyond the control of VBrick. Use these links at your own risk. The use of such links does not imply that VBrick endorses or recommends the content of any third-party web pages.

About VBrick Systems

Founded in 1997, VBrick Systems, an ISO 9001 certified vendor, is a privately held company that has enjoyed rapid growth by helping our customers successfully introduce mission critical video applications across their enterprise networks. Since our founding, VBrick has been setting the standard for quality, performance and innovation in the delivery of live and stored video over IP networks—LANs, WANs and the Internet. With over 20,000 video appliances installed across over 1,000 IP networks world-wide, VBrick is the recognized leader in reliable, high-performance, easy-to-use networked video solutions.

STB Release Notes

Readme

The VBrick EthernetTV Set-Top Box is configured for DHCP and will automatically obtain an IP address from a DHCP server if present. If a DHCP server is not available, follow the instructions in the [Configuration](#) section of this document to manually assign a static IP address.

The set-top box comes configured to run in **Local** mode. When used in **Local** mode, the set-top box will boot to a home page after initial power-up and you will be presented with an example list of streams. To use the box in **Local** mode, edit the configuration file on the STB to refer to valid streams on your network. See the *STB Quick Start Guide* for details.

To change the configuration to run in **MCS** (Media Control Server) mode, you need to change two settings: **MCS Location** and **Start Mode**. The STB can then be used in a network with VBrick's MCS. The MCS will provide program guides with live, stored and scheduled streams in addition to many other features. See the *STB Quick Start Guide* for details.

To change the configuration to run in **Local-Fullscreen** mode, you need to configure the **Receive Address** and **Start Mode**. The STB will then display the configured stream without a program guide or user interface.

Topics in this document

[Readme](#)

[Compatibility](#)

[Features](#)

[Configuration](#)

[Operational Notes](#)

Compatibility

The 3.7.1 software release is compatible with:

- VBrick 3000 Series MPEG-1 Encoders (Release 2.4.0 or above).
- VBrick 4000 and 6000 Series MPEG-2 Encoders (Release 2.1.0 or above).
- VBrick 4000 and 6000 Series MPEG-4 Encoders (Release 2.1.0 or above).
- Ethernet-TV-MCS Media Control Server (Release 2.0.0 or above).
- EthernetTV-NXG Video-on-Demand Server (Release 2.0.0 or above).

Features

- Access the EtherneTV-NXG Video on Demand server through the EtherneTV-MCS.
- Receive and decode live MPEG-1, MPEG-2 and MPEG-4 unicast and multicast streams.
- Video on Demand support for MPEG-1, MPEG-2 and MPEG-4.
- Access the World Wide Web.
- Low cost and compact size.
- IR Remote control for easy navigation.
- Boot standalone. No server required.
- Full DHCP and DNS support.
- Hardware decoding provides high quality video.
- Support for hundreds of channels.
- MPEG-1 rates up to 3 Mbps, MPEG-2 rates up to 12 Mbps, and MPEG-4 rates up to 1.5 Mbps.
- Optional wireless keyboard.
- Configuration over locally connected keyboard and monitor, serial craft port, telnet, Integrated Web Server, or Web Services.
- Passthrough Responder.
- Closed Captioning.

Configuration

Configuring the IP Address

For detailed instructions, see "Setting the IP Address" in the *STB v.3.7.1 Admin Guide*.

Configuring for PAL

The `setres` command can be executed from the linux shell. The purpose of this command is to give PAL users a means to change the screen resolution. Although this command can be executed from any shell (**Cntrl-Alt-F1**) from the console, or telnet, or the serial port), the intent is for it to be used from the serial port since a PAL user without an NTSC or VGA monitor has no other choice if the STB's IP address is unknown. The syntax of the `setres` command is:

```
setres pal username password
setres ntsc username password
```

Upgrading the Set-Top Box

For detailed instructions on how to upgrade your STB, see "System Update" in the *STB v3.7.1 Admin Guide*.

Operational Notes

- In 128K and 200K templates, video disruptions of 1–2 seconds may occur every 4–6 seconds; the audio is not affected. Depending on the circumstances, the low-bitrate base template settings may need to be increased on the encoder. Note that UDP performs better than Interleaved.
- When playing an MPEG-4 stream in Local or MCS mode and there is a loss of service at the encoder end, the STB will attempt to restart for 20–30 seconds. During this time the STB will not respond to keyboard or mouse commands. This is expected behavior. When service is restored, control will return to the STB and you can restart the stream.
- The Video > Data Buffering Seconds parameter can be used to "smooth" out the video in networks where there is a high amount of delay variation or congestion in the network backbone. If an MPEG-4 stream won't open at all, set this parameter to a lower value. The STB may reset if configured for more than 6 seconds of MPEG-4 buffering.
- In set-top boxes with a Rev. A Sigma decoder chip (P/N 8000-0044-0000), there is a pause in the video every 10 to 20 seconds to fill up internal buffers and avoid lip-sync problems when playing MPEG-1. MPEG-1 is not recommended on Rev. A hardware.
- The right mouse IR Remote button is not functional.
- The logo that appears at boot time is not viewable on a PAL monitor.
- It is not possible to use the linux shell command line interface on a PAL monitor. Other interfaces such as a VGA display, terminal connected to the STB's serial port (available on part number 8000-0044-0002 or later), telnet, or the STBs integrated web server can be used to manage the box.
- It is not possible to "downgrade" an STB to a prior release.
- When performing a software upgrade from the web management interface, no user feedback is provided when the upgrade fails.
- On rare occasions, the TV may display in black and white rather than in color. If this happens, reset the STB.
- When playing certain MPEG-4 VOD files, the STB UI may reset. Files that exhibit this behavior are not playable on the STB.
- The box should be manually rebooted whenever the system time is changed. Video may freeze if the system time is changed without a reboot. The automatic reboot feature may reboot at the wrong time if the system time is changed without a reboot.
- When receiving an MPEG-4 stream requested via RTSP from a VBrick MPEG-4 encoder running software earlier than version 3.1.0, the Key Frame Interval should be left at its default value of 3 seconds. A value of zero or larger than 3 will prevent reliable MPEG-4 playback on the STB.
- When browsing the web in MCS mode, the user is prompted with a message from the browser before returning to the MCS user interface.
- Exiting fullscreen after the video has played to the end will cause the video to restart.
- There are frequent frame drops when streaming at a low data rate (about 300K) from the Quicktime Broadcaster application.
- File system writes, such as those that result from changing the configuration or modifying the local user interface, may take several seconds. Avoid rebooting the STB immediately after such writes to avoid corruption of the file system and possible loss of data.
- For MPEG-4 RTSP streams from a VBrick encoder, the encoder should be configured to enable RTCP transmit. See the *STB Admin Guide* for details.

-
- When DHCP is enabled and DNS information is retrieved via DHCP, fully qualified domain names need to be used for all configurable URLs such as the MCS location and WWW Home Page location.
 - The ftp client on the STB does not run well over the serial port. Use another interface instead.
 - With the correct terminal emulator, the pman configuration utility can be run from the serial shell. The serial port parameters cannot be changed from such a pman session. If the serial port parameters are accidentally changed from a pman session that is running on the serial port, reboot the STB to recover.
 - MPEG-4 VOD files repeat after playback completes.
 - The STB will always request FF or RW of VOD files at a speed of 12x. The NXG VOD server can be configured to generate FF/RW at different speeds. If a speed other than 12x is configured at the VOD server, FF/RW will occur at the speed closest to 12x.
 - The ftp home directory (accessible from Parameters->Network->FTP home directory from the management interfaces) should not be left blank. Doing so results in an error at boot time.
 - Audio quality playing at a 56Kbps bit rate is poor.
 - Video-only or Audio-only streams may not play reliably.



VBrick Systems, Inc.
12 Beaumont Road
Wallingford, Connecticut 06492