



# EtherneTV-STB Set Top Box

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Set Top Box v3.74b  
Release Notes



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12 Beaumont Road  
Wallingford, Connecticut 06492, USA  
[www.VBrick.com](http://www.VBrick.com)

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## 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 thousands of video appliances installed world-wide, VBrick is the recognized leader in reliable, high-performance, easy-to-use networked video solutions.

VBrick is an active participant in the development of industry standards and continues to play an influential role in the Internet Streaming Media Alliance (ISMA), the MPEG Industry Forum, and Internet2. In 1998 VBrick invented and shipped the world's first MPEG Video Network Appliance designed to provide affordable DVD-quality video across the network. Since then, VBrick's video solutions have grown to include Video on Demand, Management, Security and Access Control, Scheduling, and Rich Media Integration. VBrick solutions are successfully supporting a broad variety of applications including distance learning and training, conferencing and remote office communications, security, process monitoring, traffic monitoring, business and news feeds to the desktop, webcasting, corporate communications, collaboration, command and control, and telemedicine. VBrick serves customers in education, government, healthcare, and financial services markets among others.

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# STB v3.74b Release Notes

The VBrick EtherneTV 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** mode, you need to change two settings: **MCS Location** and **Start Mode**. The STB can then be used in a network with VBrick's ETV Portal Server (formerly MCS). The Portal Server 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.

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## What's New in v3.74b

This release supports "hardened" SSL wherein all communication between the Portal Server and the Set Top Box is encrypted. Hardened SSL is a Portal Server v4.4 feature. **Legacy STBs must be upgraded to v3.74b in order to use this Portal Server v4.4 feature.**

## Compatibility

The STB v3.74b software release is compatible with:

- VBrick 3000 Series MPEG-1 Encoders (v2.4.0 or above).
- VBrick 4000 and 6000 Series MPEG-2 Encoders (v2.1.0 or above).
- VBrick 4000 and 6000 Series MPEG-4 Encoders (v2.1.0 or above).
- Ethernet-TV Portal Server (v4.4 or above).
- EthernetTV-NXG Video-on-Demand Server (v2.0.0 or above).
- EthernetTV-VOD W Video-on-Demand Server (v3.1.0 or above).

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## Upgrade

To upgrade from earlier versions of Set Top Box software, see "System Upgrade" in the *STB Admin Guide*.

## Configuration

All connection and configuration details for the set top box are explained in the *STB Admin Guide*. See the following topics for specific information:

### *Configuring for PAL*

The `setres` command can be executed from the Linux shell. This command gives PAL users a means to change the screen resolution. Although this command can be executed from any shell (for example from the console, 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 not known. The syntax of the `setres` command is:

```
setres pal <username> <password>
setres ntsc <username> <password>
```

## Standard Features

- Access the EtherneTV-NXG Video on Demand server through the EtherneTV Portal Server.
- Access the EtherneTV-DOD W Video on Demand server through the EtherneTV Portal Server.
- 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 to 3 Mbps, MPEG-2 rates to 12 Mbps, and MPEG-4 rates 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.
- User-friendly upgrade application.

## Caveats

This section addresses known issues in this release, most of which have an easy workaround. For more information about any item, or help with an issue not listed here, contact your reseller or VBrick Customer Service.

- RTSP Interleave does not work with Cisco's Application and Content Networking System (ACNS) software.
- The VOD W server does not respond to a rewind request issued after the end of stream.
- If a Set Top Box will not play live MPEG-4 multicasts in **MCS** mode, verify that the SAP **Format** is **ISMA Compliant** and that **Session Information** has been configured. In IWS go to **Configuration: Encoder > Announce (SAP)** to configure these parameters.
- In the 56, 128 and 200K MPEG-4 templates, video disruptions of 1–2 seconds may occur every 4–6 seconds; the audio is not affected. To work around this issue, change the SAP format. In IWS, go to **Configuration: Encoder > Announce(SAP)** and set **Format** to **ISMA Compliant**.
- 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.
- In set top boxes with a Rev. A Sigma decoder chip (P/N 8000-0044-0000), there is a pause in the video every 10–20 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 logo that appears at boot time is not viewable on a PAL monitor. Also, you cannot 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.
- 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.
- 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 ETV Portal Server 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.
- 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.
- The FTP client on the STB does not run well over the serial port. Use another interface instead.
- The STB will always request FF or RW of NXG VOD files at a speed of 12x. The NXG VOD server can be configured to generate FF/RW at different speeds. If you configure a speed other than 12x, FF/RW will occur at the speed closest to 12x. Note that VOD W files are always requested and played at 5x.
- Video-only streams, or a video stream with very low audio levels (such as an unplugged audio input) may not play back reliably. Similarly, audio quality playback at 56 Kbps (total bit rate) is poor.







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