

iMedia MythTV Linux Distribution Overview.

General Notes

iMedia Linux is a Linux distribution used in streaming encoders/servers and Mini-Box embedded systems by **iTuner Networks**¹. **iMedia Linux** distribution aims for a small footprint installation, stability and usability on small disk space and memory restrictions. For a overview of **iMedia** distribution features visit:

<http://www.mini-box.com/site/resources/html/linux-page.html>

iMedia Linux is a battle hardened Linux operating system, a stable and small footprint distribution used for more than 5 years in various computing environments.

iMedia MythTV Features

iMedia MythTV distribution is a showcase of the larger **iMedia** distribution featuring an easy way to install **MythTV**² and turning your system into a personal video recorder.

Current release of **iMedia MythTV** distribution is based on *MythTV 0.18.x* and *Freedesktop.org Xorg Xserver 6.8.1.99, 2.4.25 kernel* with several modifications, latest *MPEG2* and *2D/3D acceleration* drivers for *VIA Chipsets*, *ivtv 3.2.0* driver for Hauppauge PVR cards with MPEG2 acceleration, Mplayer 1.0 and many other utilities.

The target hardware is Via EPIA mini-ITX mainboards and Hauppauge PVR-150/250/250. With this hardware configuration iMedia MythTV distribution should run out-of-the-box after installation has been performed.

iMedia MythTV Quick Install

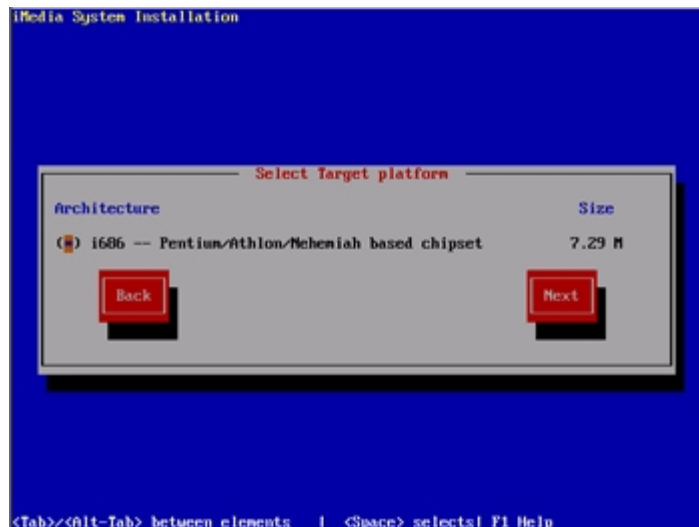
iMedia Linux has been designed to run in restricted disk spaces and can be installed on Compact Flash storage because all logging is made on special files which basically are a circular memory buffers. Also iMedia Linux features a modified version of ReiserFS a journailling filesystem which will ensure better handling of filesystem errors.

The recommended way to install iMedia Linux is on a Compact Flash for the operating system and a additional hard drive for MythTV recordings or storage space for various pictures and movies that you want to keep. In this case the install system will automatically detect that you have another hard drive beside compact flash and at boot time it will be mounted on **/opt/extra** (which is the path set in MythTV for recordings saving and video/music/pictures storage). The install system won't touch your secondary hard drive filesystem and will be mounted with what filesystem already has. You can also use only one hard drive and install everything to it but in this case **all existing data on hard drive will be deleted**. The default installation template will occupy about 128Mb with the possibility to add more package by using *Select Custom Packages*.

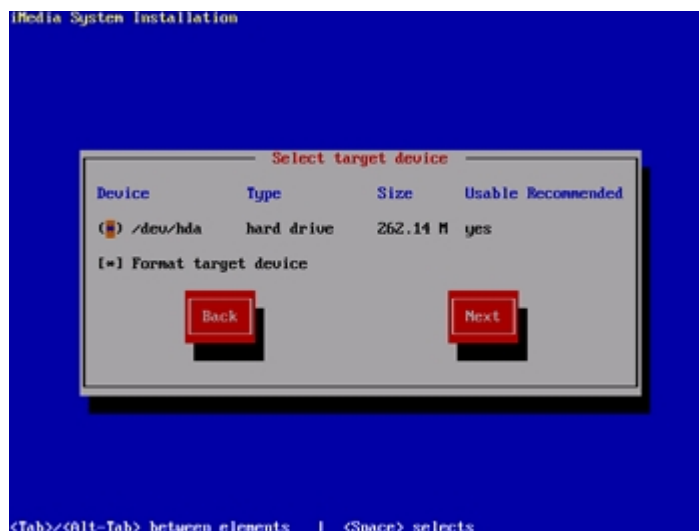
Below you will find screenshots from the installation CDROM and comments to guide you thru the installation process

1 Visit www.ituner.com and www.mini-box.com for more information.

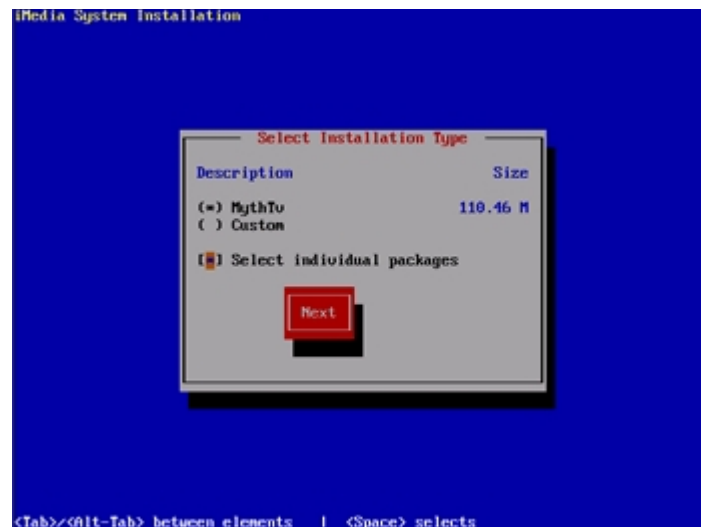
2 Visit www.mythtv.org for more information on MythTV PVR project.



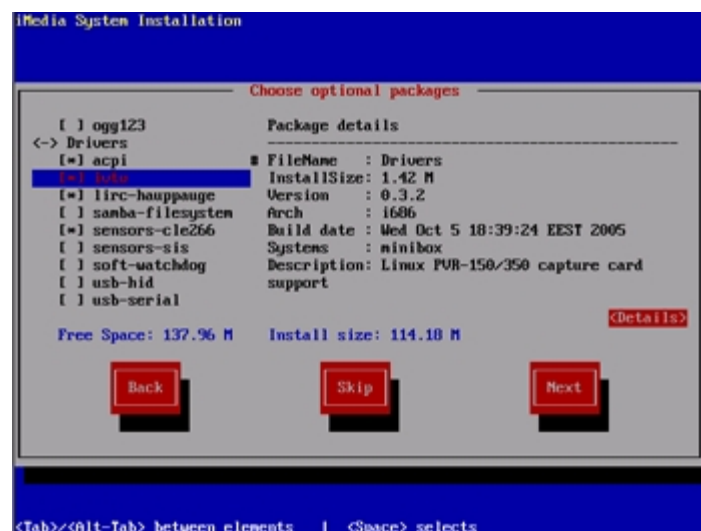
First selection in the installation process is the Target Platform or Architecture. Since this release of iMedia MythTV is specifically designed for VIA Epia mainboard you can only select i686 architecture.



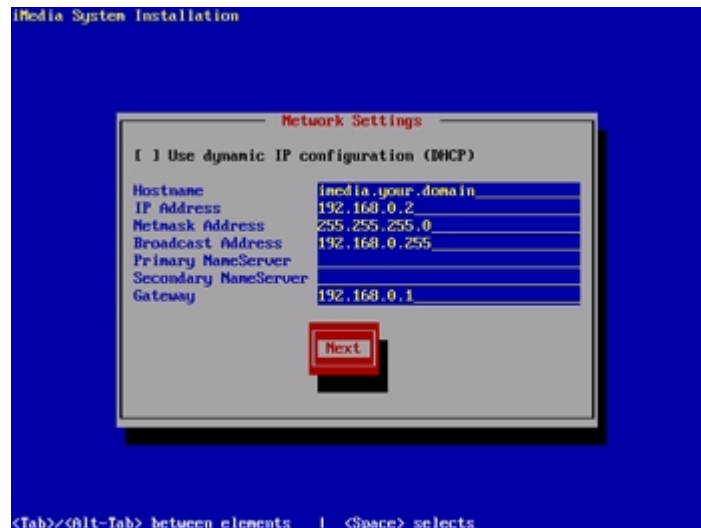
Second screen allows you to select the target device for install program. If multiple devices are found they are shown here. Be sure to select the primary master hard drive for installation. The secondary hard drive will be automatically mounted at boot time.



The third screen allows selection of a installation template or the possibility to make a Custom installation. Since this release focuses on MythTV you'll find only MythTV template and Custom option. By selecting MythTV template and checking the box next to *Select individual packages* you can add more packages to your installation (the packages from the MythTV template will remain selected).



The fourth screen appears if you selected *Select individual packages* and allows you to customize your distribution. For example you can make a small install of Xserver and Mplayer if you intend to build a computer just to play movies and music or you can make a small install for a router or webserver application.



The fifth screen is the network configure screen and will allow to configure your network. The sixth screen will allow to add additional users for the system that you are building but this step is not necessary for MythTV build.

iMedia MythTV Configuration

The default installation provides all default settings needed for mythtv to run without user intervention.

The default setup is for NTSC TVOut. If you need to change it PAL format you need to edit /etc/X11/XF86Config file.

If you removed the mythtv-default-settings package from your installation or you have different channel data you need to make an account to go to <http://labs.zap2it.com> and register. You'll need to modify your account and password in mythtv setup.

For this you need to disable automatic loading of mythtv at boot time from /etc/X11/xinit/Xmanager (set PREFFERED=PAWM for this).

Next step is to run Xserver with *startx* command, launch Xterm from the icon on the desktop and run */opt/mythtv/bin/mythtv-setup*. Select No for **Delete capture card settings** and Yes for **Delete Programs Data**. From the setup program you need to edit **Video Sources** and add your username and password.

After that you need to exit the MythTV setup program and run */opt/mythtv/bin/mythfilldatabase* to populate the database with your new channel data. You can find more details about this on MythTV website:

<http://www.mythtv.org/docs/mythtv-HOWTO-5.html#ss5.3>

More information of setting up MythTV can be found on MythTV website <http://www.mythtv.org>.

Since there are many different Hauppauge PVR card on the market some users might need to replace the firmware in /lib/modules/ivtv-fw-enc.bin and /lib/modules/ivtv-fw-dec.bin with the firmware from <http://www.ivtvdriver.org/index.php/Firmware> . This release was tested with PVR-150 and PVR-250 and should work correctly with them. In the future releases we will add support/autodetection for more PVR cards.

Comments, bug reports and suggestions are welcomed to imedia-mythtv@ituner.com.