

Installation Guide PC Platforms (Windows XP, Mac OS, Linux)

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# 1 Introduction

TwonkyMedia, the TwonkyVision UPnP MediaServer, enables you to share all your Music, Pictures and Videos with UPnP-enabled client devices (also known as media players, digital media players (DMP) or media adapters) throughout your home. For a list of supported client devices, have a look at the <u>TwonkyVision website</u>.

#### 1.1 Installation

TwonkyMedia licences are available through one of the following distribution channels:

- pre-installed on an embedded device like at network attached storage device or STB,
- bundled with a client device,
- downloaded from the TwonkyVision website.

In the first case TwonkyMedia is already installed on the device and ready to use. In the two other cases mentioned above you first have to install TwonkyMedia. This installation guide describes how to install it on PC platforms, namely Windows XP, Linux and Mac OS. If you want to install TwonkyMedia on other devices like NAS or STBs, please refer to the installation guide provided with the distribution packages.

After installing TwonkyMedia, the default configuration will in most cases allow to start using TwonkyMedia right away.

#### 1.2 About this Manual

This manual will help you to install TwonkyMedia on your target PC platform. The TwonkyVision UPnP MediaServer is available in two different versions: a MusicServer (TwonkyMusic) and the full MediaServer (TwonkyMedia). The MusicServer is restricted with regard to supported content types. The documentation below always refers to TwonkyMedia even though the information also applies to TwonkyMusic.

Additional information about setup and configuration of TwonkyMedia can be found in our <u>FAQ</u>, our <u>Forum</u> and the <u>Media Servers Forum</u>.

#### **1.3 Feedback and Technical Support**

If you require technical support, please contact the support department at <u>support@twonkyvision.com</u>. At this address we would also appreciate any comments or feedback you might have regarding TwonkyMedia, e.g. additional features you would like to see in a future version.

# 2 Windows XP Setup

If you have installed an earlier Version of TwonkyMedia, you should first un-install it through the start menu:

Start → Control panel → Add/remove programs → TwonkyMedia

To start the setup, you have to doubleclick MediaserverSetup.exe or MusicserverSetup.exe which has been provided to you either on the installation CD or via download.

In the first step the installation language has to be selected. This is not only relevant for the installation process itself, but will also define the language used for the TwonkyMedia configuration pages and the navigation tree.

Installer	Language 🛛 🛛 🔀
٢	Please select a language.
	English 💌
	OK Cancel

Next you have to accept the end user license agreement. The software will not be installed if you do not accept the licence terms.

Twonkyvision Mediaserver Setup	
License Agreement Please review the license terms before installing Twonkyvision Mediaserver.	
Press Page Down to see the rest of the agreement.	
TwonkyVision GmbH Software License Agreement Thank you for doing business with TwonkyVision.	
This Software License Agreement (hereinafter referred to as the "Agreement") is made by and between TwonkyVision GmbH, a German limited liability company, having its registered place of business at Kaiserin-Augusta-Allee 86, 10589 Berlin, Germany (hereinafter referred to as "TwonkyVision"), and you, the customer (hereinafter referred to as "you" or "your"). This Agreement covers the license in the TwonkyVision	
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install Twonkyvision Mediaserver.	
Twonkyvision — I Agree Cano	:el



In addition to TwonkyMedia, you can also choose to install shortcuts to the documentation and various related web links.

Diversional Setup		
Choose Components Choose which features of TwonkyMedia you want to install.		
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.		
Select components to install:	<ul> <li>✓ TwonkyMedia</li> <li>✓ Web Interface Shortcuts</li> <li>✓ Documentation</li> <li>✓ Web Links</li> </ul>	Description Position your mouse over a component to see its description.
Space required: 2.5MB	<	
Twonkyvision		

On the next screen you will need to select the root directory for your media. TwonkyMedia will automatically scan this directory including all subdirectories for content like pictures, music and videos. If you do not specify a directory here, TwonkyMedia will use the "Documents and Setting" directory for the currently logged on user as default media root.

Further setup options allow to automatically detect 3<sup>rd</sup> party databases of Winamp and iTunes. You can also select to install TwonkyMedia as system service. In this case TwonkyMedia will automatically be started upon system startup.

Browse For Folder	? 🗙
Media Directory.	
🞯 Desktop	~
🗉 🚔 My Documents	
🖃 😼 My Computer	
🖃 😥 Local Disk (C:)	
E 🛅 DLNA	
Documents and Settings	
🗉 🧰 All Users	
🕀 🧀 chg	
🗉 🧰 hp	
🗄 🧰 I386	~
Make New Folder OK Ca	ancel .;

TwonkyMedia Setup		
TwonkyMedia Advanced Install Options You may optionally configure advanced install options.		
You may optionally configure advanced install settings here. If you are unsure you may leave all the settings as default, and simply click Next.		
Install TwonkyMedia as a system service (Windows XP and Windows 2	2000 only).	
Detect and use Winamp's playlist and music database.		
Detect and use iTune's playlist and music database.		
Select your media root diretory.		
C:\Documents and Settings\chg		
Twonkyvision		
< Back Next	> Cancel	

The following two screens will provide you with the default path for the installation and a default start menu folder. In both cases you may specify alternative folders.

Twonkyvision Mediaserver Setup	
<b>Choose Install Location</b> Choose the folder in which to install Twonkyvision Mediaserver.	
Setup will install Twonkyvision Mediaserver in the following folder. 1 folder, click Browse and select another folder. Click Next to continu	Γο install in a different ιe.
Destination Folder <u>C:\Programme\Twonkyvision\</u>	Browse
Space required: 1.3MB Space available: 37.4GB	
Twonkyvision	
< Back	Next > Cancel

Twonkyvision Mediaserver Setup	
<b>Choose Start Menu Folder</b> Choose a Start Menu folder for the Twonkyvision Mediaserver shortcuts.	
Select the Start Menu folder in which you would like to create the program's shortc can also enter a name to create a new folder. Twonkyvision Mediaserver	uts. You
ACD Systems Autostart Cisco Systems VPN Client comFAX - WNT Creative CyberLink PowerDVD D-Link Media Server DVD-lab FinePrint Game On Google Desktop Search	
Do not create shortcuts	
< Back Install	Cancel

Installation will now take place automatically.

Twonkyvision Mediaserver Setup		
Installation Complete Setup was completed successfully.		
Show details		
Twonkyvision	k Next >	Cancel

After the installation is completed TwonkyMedia can be started from the Windows start menu.



TwonkyMedia can be further customized through the web configuration pages. They can either be accessed through the Windows start menu or by selecting the corresponding entry from the context menu when right clicking on the TwonkyMedia icon in the task bar. Please note, that TwonkyMedia can only be configured through its internal web pages when the server is running. Short help notices are provided in the configuration pages. For details regarding the individual configuration options, please refer to the TwonkyMedia User Manual.

### 3 Linux

The Linux packages come in two flavours: as shell script (extension .sh) and as ZIP file (.zip). The shell scripts are actually wrappers for the ZIP files to provide a simpler installation and setup procedure.

For Linux novices it is recommended to use the shell script installer, which is described in the following section. Experts may skip to section 3.2 for an overview of the ZIP package.

#### 3.1 Installing a Shell Script Package

You may install one of the following three variants:

twonkymedia- <platform>.sh</platform>	full featured UPnP server
twonkymusic- <platform>.sh</platform>	music only UPnP server
twonkymediatrial- <platform>.sh</platform>	gratuitous trial version of twonkymedia

<platform> is most likely i386, e.g. twonkymedia-i386.sh for a Linux x86 PC.

If you want to install two different versions, then you ought to change the install configuration to modify the install path. The installer will overwrite any previous installation without warning otherwise!

Note: The current version of the installer does neither support command line options nor does it offer dialogs to configure the installation. This will change in a future version.

#### 3.1.1 Pre-Install Configuration

If you are logged in as root, you may skip this section. The content directory and other runtime configuration settings can be modified later, when the server is running.

The script assumes that the installation is done by user root. If you would like to perform a single user installation or to modify the initial setup, please open the script in your favourite editor on Linux. **Never ever edit the script under Windows!** 

The following variables in the script are used to control the installation:

- INSTALLDIR The directory where the server will be installed. If you are not root, you will most likely want to change this to \$HOME/TwonkyVision Default: /usr/local/TwonkyVision
- CONTENTDIR The directory, where the server will look for media files. If the media files are in a different location, you will need to change this. Default: /home
- INITSCRIPT Where to place the script to start the server automatically at boot time. Default: /etc/init.d/twonkyserver
- STARTAFTERINSTALL Enable or disable start of the server after installation. Set to no to disable. Default: yes

#### 3.1.2 Installation and Start of the Server

If you have downloaded the script from the web, your browser will offer to execute the script. If you do not need to reconfigure the script, then simply allow this and you are done. Otherwise you will need to run the install script manually. The process for this may differ on various distributions and desktops. For the most common desktops, the installation is described below.

#### 3.1.2.1 GNOME

Installation:

- Open nautilus. Usually the desktop will have an icon called 'personal folder' or 'home folder'. Double-click on this icon.
- Change to the directory where you have saved the installation script.
- Double-click on the script.
- The script now installs the server.
- At the end a pop-up will show the installation log.

If you have disabled auto-start, you have to start the server manually:

- Open nautilus and go to the installation directory.
- Depending on the installed server, double-click on one of the following servers:
  - $\circ$  twonkymedia
  - $\circ$  twonkymusic
  - o twonkymedia-trial

Once you have started the server, you can configure it by double-clicking on twonkyvisionconfig.html, which will open a browser window with the configuration page.

#### 3.1.2.2 KDE

Please note that by default KDE requires only single clicks instead of double clicks to open directories or to start programs. Although it is possible to change this behaviour to double-clicks in the control center, it is assumed in the description that only single clicks are necessary.

Installation:

- Open konqueror. Usually the desktop will have an icon 'personal folder' or 'home folder'. Click on this icon.
- Change to the directory where you have saved the installation script.
- Click on the script.
- The script now installs the server.
- At the end a pop-up will show the installation log.

If you have disabled auto-start, you have to start the server manually:

- Open konqueror and go to the installation directory.
- Depending on the installed server, click on one of the following servers:
  - o twonkymedia
  - $\circ$  twonkymusic
  - o twonkymedia-trial

Once you have started the server, you can configure it by clicking on twonkyvision-config.html, which will open a browser window with the configuration page.



#### 3.1.2.3 Terminal

Start your favourite terminal (xterm, kterm, rxvt ...) and change to the directory that contains the installation script.

Now start the script:

./twonkymusic-i386.sh (or similar)

Or, to suppress the message box at the end

DISPLAY= ./twonkymusic-i386.sh (or similar) Note that there is a blank between = and the dot.

To start the server manually, either invoke it manually in the installation directory, or invoke it with the start script twonkymedia.sh. The script will first look for an installation in /usr/local/TwonkyVision and then in the directory where the script itself is installed.

#### 3.2 Installing a Zipped Package

There are three different packages available:

twonkymedia- <platform>.zip</platform>	full featured UPnP server
twonkymusic- <platform>.zip</platform>	music only UPnP server
twonkymedia-trial- <platform>.zip</platform>	gratuitous trial version of twonkymedia

<platform> is most likely i386, i.e. twonkymedia-i386.zip for a Linux x86 PC.

Unzip your package into an empty directory.

Your package will consist of the following files:	
twonkymedia, twonkymedia-trial or twonkymusic	TwonkyVision UPnP server
twonkymedia.sh	Init script to start the server
RevisionHistory	Changelog
radio.m3u	Sample playlist
Linux-HowTo.txt	Quick installation guide
licence-en.rtf	Licence in English
licence-de.rtf	Licence in German
lame	MP3 plug-in
flac and libFLAC.so.7	FLAC plug-in
jpegscale	JPEG plug-in (media servers only)

Either keep all files in the directory where you have unzipped the package or copy the corresponding server and the associated plug-ins to your most favourite installation directory. Note that the init script uses as default /usr/local/TwonkyVision.

Make sure that the server file and the plug-ins have the exe bit set. If not, try: "chmod 700 twonkym\* lame flac jpegscale"

Eventually it is necessary to have a multicast route set for the server by issuing: "route add -net 224.0.0.0 netmask 240.0.0.0 dev eth0"

Start the server with "./twonkymedia", "./twonkymusic" or "./twonkymedia-trial". The server will display a startup message. The server is running now and you can find and use it with your UPnP client device. Before you continue, you should point the server to one or more content directories via the configuration web-page, unless the content is available from subdirectories of the server's working directory.

If the server can not be found by the client device check your firewall settings. When the server is shut down with CTRL-C or when it receives a SIGTERM signal it will send a bye bye message to the UPnP network to let the devices know that it disappeared.



To enable autostart of the server, you need to be a Linux expert, because all Linux flavours differ and no general procedure can be suggested. In many cases "twonkymedia.sh" could be adapted to your needs and linked into an appropriate location to enable autostart. The script is intended to work on SUSE, OpenSUSE, Fedora Core and other Linux Standard Base (LSB) compliant systems when installed into /etc/init.d and linked to rc3.d and rc5.d as S99twonkyserver and K99twonkyserver:

"In -s ../twonkymedia.sh S99twonkyserver"

"In -s ../twonkymedia.sh K99twonkyserver"

# 4 Mac OS Configuration Tool

The TwonkyMedia installer package for Mac OS will guide you through the installation process and configure the main parameters.



















After you pressed 'Restart' TwonkyMedia is started and you can configure it by means of Safari. For that purpose you need to specify the HTTP address of the TwonkyMedia web configuration page.

é	Safari	File	Edit	View	History	Bookmarks	Window	Help	(î;
$\Theta \Theta \Theta$						TwonkyMusic index.html			
C + Shttp://127.0.0.1:9000/									

# 5 Further Configuration

After installing TwonkyMedia, the default configuration will in most cases allow to start using TwonkyMedia right away. In addition, there are different ways to customize TwonkyMedia:

All options may be configured by means of the server's web-based configuration pages. Upon startup the MediaServer creates a twonkyvision-config.html page in its startup directory. To access this configuration page, you can simply open this page with a web browser. The page can also be accessed with Windows XP systems by just opening the presentation page of the MediaServer device. If you have not changed the default settings, this page is always found at the following location:

http://your-ip:port/configpage/index.htm

where "your-ip" is the IP address of the device where the MediaServer is running and the port is the port number of the MediaServer HTTP server (9000 by default). The url http://127.0.0.1:9000 will work on most systems.

- Another way to select options is to edit the configuration file of the MediaServer directly with a text editor. Due to error-proneness this method is recommended for experienced users only. Depending on the type of server you are using, the filename is either twonkyvision-mediaserver.ini or twonkyvision-musicserver.ini. The file is created automatically on the first startup of the MediaServer on Windows systems in the Windows directory, on UNIX and Macintosh it is found in the MediaServer startup directory. If you want to reset the MediaServer to the default configuration at any time, you can simply delete this file the MediaServer will recreate it with the default settings. The same applies to resetting single configuration options locate the option in the .ini file and delete the line from the file on the next startup the MediaServer will re-insert the corresponding line for that option with the default value into the .ini file.
- Finally, options can also be specified as command line parameters when starting the MediaServer. Moreover, a few options can only be specified as command line parameters. If you want to use command line parameters on a Windows system, you can first create a shortcut to MediaServer.exe. Then under 'properties' you can add the command line parameters behind the name of the executable. This method of selecting options is not available when using the server in an embedded system.

Most changes to the configuration require a restart of the MediaServer. You can use the restart button on the web-based configuration page or simply stop the MediaServer and start it again.

# 6 3<sup>rd</sup> party software

TwonkyMedia utilizes the following LGPL code for standalone plugins – mainly to transcode content to different formats:

- Libjpeg to resize JPEG files to different sizes (see <u>http://www.ijg.org/</u>)
- Lame encoder/decoder to transcode mp3 files (see <u>http://lame.sourceforge.net/</u>)
- FLAC encoder/decoder to transcode flac files (see <u>http://flac.sourceforge.net/</u>)