

# Create a complete Home entertainment system with a PC

[A summary of recent articles with tips and advice on how to use a PC and Media centre software to watch and enjoy a complete home entertainment experience on TV](#)

You can create a complete home entertainment system with an LCD/Plasma monitor, a PC with media centre software, an amplifier, speakers and cables.

## Windows Media Center Overview

Windows Media Center is a feature in Windows Vista Home Premium and Windows Vista Ultimate. It is an easy-to-use place to store all of your photos, music, and home videos. Best of all, you can make Windows Media Center fill your screen, and navigate through its menus using either a mouse and keyboard or a remote control.

## Make the most of your Internet Connection

When you add a broadband Internet connection to your PC, you can experience quality programming in the Internet TV and Online Media sections of Windows Media Center.

## Add a Tuner and get a DVR

Take another step and add a TV tuner to your PC, and Windows Media Center becomes a DVR! Watch, pause, and rewind live TV, and record your favorite shows right to your PC. There is no monthly fee, and the electronic programming guide shows you what will be on for the next two weeks.

## Use Switchers and extenders for Windows Media Centre

If you're ready for a whole-home experience, add an [Extender for Windows Media Center](#). These devices connect to your Windows Media Center-based PC, allowing you to enjoy the media from your PC on any TV screen in your house.

Switchers and splitters enable several devices such as games consoles, DVD players to be connected to the system.

## How to get Windows Media Center on Your TV

Your desktop PC or laptop running Windows Vista Home Premium or Windows Vista Ultimate can connect either directly to a TV or indirectly with a Switcher or Extender for Windows Media Center. Here's how it works:

### Connect your PC to a TV directly

You can use several different types of connections to get Windows Media Center on your TV. You can connect your PC to many different types of displays, ranging from an HD-ready flat screen TV to a standard CRT computer monitor.


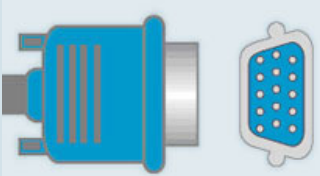

### Connect your PC to a TV using a Switcher or Extender for Windows Media Center

Extender technology is built into home entertainment devices like TVs, DVD players, and cool, quiet components that allow you to keep your PC where it makes sense. Your Xbox 360 works as an Extender for Windows Media Center<sup>2</sup>, in addition to several new devices.

With the new Extenders for Windows Media Center, you can stream the digital media you have on your Windows Media Center PC in as many as five rooms in your house with full HD video (available only in the U.S at present) and surround sound.

Use the table below to determine the type of connection you need. The connection types are listed in order of quality, with the

greatest quality (HDMI) at the top and the least quality (composite) at the bottom.

Connection Type	Looks Like	Application
<p><b>HDMI</b> HDMI transmits audio and video signals together. It is the newest standard digital interface that, much like DVI, provides one of the highest quality connections.</p>		<p>Use to connect your Windows Media Center PC to a TV, a computer monitor, or certain newer high-end video displays.</p>
<p><b>DVI</b> DVI transmits the digital signal in its raw form. DVI cables provide one of the highest quality connections.</p>		<p>Use to connect your Windows Media Center PC to a TV, a computer monitor, or certain newer high-end video displays.</p>
<p><b>VGA</b> VGA separates the signal for red, green, and blue to transmit high-resolution images. VGA cables are a standard connection providing high-quality video from a PC to a monitor (or TV).</p>		<p>Use to connect your Windows Media Center PC to a TV or a computer monitor.</p>
<p><b>Component Video</b> With a component cable, the signals that generate the video image are separated into three individual signals. This keeps the images from degrading when the signal travels over the wire. The result is a high-quality image.</p>		<p>Use to connect your Windows Media Center PC to a TV.</p>
<p><b>S-Video</b> S-Video cables separate the signal into two parts, reducing the amount of interference between the source and display and delivering a good quality image.</p>		<p>Use to connect your Windows Media Center PC to a TV.</p>
<p><b>RCA/Composite</b> A composite cable carries a video signal that combines the parts of the video image into one signal. While this makes for lower-cost cables and connections, the quality of the image is not as good as other types of cables.</p>		<p>Use to connect your Windows Media Center PC to a TV.</p>

## Media Centre PC - Typical Specification

### Go big with Windows Media Center!

View your photos in a cinematic slide show, browse your music collection by cover art, easily play DVDs, watch and record TV shows, download movies, and project your home videos—then pass the remote to let

friends and family join in the fun. With Windows Media Center you can sit back and enjoy your entertainment on your TV and stereo from the comfort of your couch for a complete home entertainment experience.

**Share big**, beautiful pictures and home videos in their full-resolution glory on your TV screen. With Windows Media Center you can access your entire digital photo and video library with the click of a remote

control—and you can even add your own soundtrack to set a party vibe. Then use the remote to send your pictures via e-mail or burn them to a DVD.

**Navigate** and play your music collection with just the click of a remote control! With Windows Media Center and a compatible remote you can quickly search and select tracks visually by album art, or by artist, album title, song, year, or genre. Pass the remote and give friends the chance to mix and play their favorites, too.

### Typical Media PC Specification

In your living room you may choose a stylish PC case but the basic system needs only the following inside:

- Processor – Min 1.4 GHz (ideally - Pentium M for low noise)
- Motherboard (ideally a Pentium M) with high resolution HDMI or DVI output and 2x PCI slots for TV tuner cards
- 200 Gb or larger Hard Disk Drive (ideally 350 Gb)
- Min 512 Mb RAM (ideally >1Gb)
- 16 bit sound card with 5.1 surround sound support (ideally 7.1 Digital Soundcard (HD Ready) Coaxial and Optical S/PDIF-Out Connections)
- DVD/RW (ideally 20 x DVDRW & 40 x CD Writer)
- TV Tuner cards (FM optional) DVB-T, Analogue TV and FM Radio

### Upgrade your Windows Media Center PC with a TV tuner and remote control

A TV tuner is either an internal card—installed inside your computer like a video card—or external hardware that is connected to your computer's USB port. When you have a TV tuner that's designed for Windows Vista Home Premium or Windows Vista Ultimate, you can watch and record TV on your Windows Media Center PC by connecting to a TV signal and receiving the signal from an antenna or cable TV source.

Some PCs that run Windows Vista Home Premium or Windows Vista Ultimate are sold with a TV tuner installed. If your PC didn't come with a TV tuner, you can add one at any time.

### With one TV tuner, you can:

- Watch, pause, and rewind live TV on one channel
- Record TV on one channel
- Watch a show that you have previously recorded while you record another show

### With two TV tuners, you can:

- Watch live TV on one channel and record a show on a different channel
- Record two different TV shows that are on two different channels at the same time
- Watch a show that you have previously recorded while two shows are recording at the same time, on two different channels

### Digital cable service support

Windows Media Center now features the best in high definition television with added support for digital cable service. The full experience requires a digital cable compatible PC, a digital cable tuner, digital cable service from your cable company.

### Power Windows Media Center with a remote control

Certified for Windows Vista remotes open more possibilities, allowing you to control your digital entertainment options:

- Access your entertainment from anywhere in the room.
- Pause music, video, a slide show, or live or recorded TV.
- Shuffle your entire music collection according to artist or genre.
- Tune in FM stations.
- Browse, zoom, pan, or print your pictures.

- Use simple, streamlined menus to navigate and select from the Electronic Programming Guide. Easily find your favorite programs, stations and times.

## Windows Media Center alternatives

### ShowShifter 3.12 - [showshifter.com](http://showshifter.com)

This is the daddy of timeshifting software, thanks to a solid feature-set and a host of third-party plug-ins. It supports automatic DivX transcoding, timeshifting, music and photo playback, plus add-in modules for DigiGuide and web access.

### Beyond TV 3 - [snapstream.com](http://snapstream.com)

If ShowShifter didn't exist, then Beyond TV would scoop the 'Best Media Center alternative' prize. It provides support for multiple TV tuners, timeshifting, free downloadable TV listings and a series recording option. You can also schedule

recordings online.

### Media Portal - [mediaportal.sourceforge.net](http://mediaportal.sourceforge.net)

This lacks the professional polish of the Media Center design. Nevertheless, it supports video, audio and photo playback, timeshifting, support for multiple tuners, downloadable TV listings and XviD transcoding. As an open source project, it's improving all the time.

### MythTV - [mythtv.org](http://mythtv.org)

Designed to run on the Linux OS, unlike its Windows-friendly compatriots, it's a lot harder to use and focuses purely on TV recording at the expense of music, photo and FM radio options. Worth persevering with, MythTV is ideal for a standalone PVR box.

### Replay Radio - [replay-radio.com](http://replay-radio.com)

While MythTV concentrates on TV recording, Replay Radio has been built to do the same for radio. The software can capture live radio broadcasts and save them to your PC in multiple formats. It's also an easy way to subscribe and download podcasts.

### SageTV - [sage.tv](http://sage.tv)

SageTV now includes music and DVD playback, as well as TV recording. Most of the other alternatives here record video straight to MPEG-2, but SageTV can encode directly to MPEG-4/DivX. It supports multiple tuners, but is hampered by US-only TV listings.

## About the Authors

This article is a collection of writings courtesy of: Microsoft – Windows Media Centre and *The DIY media centre* - Dean Evans enhances your 'digital lifestyle' by showing you how to turn your PC into an entertainment server.

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