



SageTV Tip #3: All About My SageTV HTPC

I decided to build a Home Theater PC (HTPC), and with SageTV at its core, it is proving to be an excellent choice. Read on to learn why I decided to build a HTPC, what components I chose, the issues I had, and my plans for the future....

Why did I build an HTPC?

I've been a long-time DVR user, having used several ReplayTV models and a Moxi HD DVR. Each of these "standalone" DVR's have excellent features, are very capable, and have stood the test of time (I purchased the first ReplayTV box very shortly after its initial release.) That said, there are three issues that were bugging me that caused me to decide to build an HTPC to replace them:

1. None of my ReplayTV boxes could reliably control our Motorola DCT-2000 Cable box. Unfortunately, cable companies don't give you a lot of choice in Digital Cable boxes, so the DCT-2000 is what I have. My ReplayTV 2xxx series boxes worked fairly well, but my 5xxx box wouldn't control reliably. Yes, I read the workarounds. Yes, I searched Google and the AVS Forum, and followed countless instructions on getting it to work, but it was never unstable. The setup required an IR blaster, and the remote control codes were repeatably unreliable. Despite the fact that both ReplayTV and the DCT-2000 had serial connectors, ReplayTV couldn't control the Cable box via the serial port. It could control several DirecTV Satellite receivers just fine, but not the DCT-2000. Apparently, it wasn't a priority to ReplayTV. So, we ended up switching to a Moxi DVR through our Cable company—which leads me to my next gripe....

2. Moxi is an EXCELLENT DVR offering many great features. I loved it. My wife loved it. My in-laws all loved it enough that they got them too. But the problem was that Moxi was becoming cost-prohibitive. Like most cable companies, initially, we had a great subscription package, but after the honeymoon as a new cable customer was over, the overall price of cable went up...way up. Every month, we had to shell out multiple fees that included such things as "Digital Receiver", "Digital Access", and "Moxi PVR service", all of which added up to just under \$20.00 per month just for the privilege of using a Moxi DVR that we did not own. And that was before any actual programming was added to it. My brother-in-law has two Moxi boxes, so for him, the Moxi-specific cost was doubled.

3. Both ReplayTV and Moxi imposed limitations that they simply wouldn't lift. I was very active on several

ReplayTV and Moxi forums, and I even did beta testing for both, so I was intimately familiar with the functions and features available. I feel that I could also objectively reveal excellent features as well as the shortcomings and lacking features of both. Specific to ReplayTV, users asked and asked for various features, but more often than not, it fell on deaf ears. Specific to Moxi, while it is an amazingly feature-rich product, the entire Moxi feature set is completely controlled by the cable company. Though Moxi itself offers excellent features and functions, the availability and configuration of these features and functions is controlled exclusively by the Cable company. If they decide it's not profitable for them to enable existing functionality, or to configure a certain function in a specific way, then they won't. The user is at the mercy of the cable company's decisions.

So, determined that I wanted reliability, extendable features, and full control, I decided to roll my own.

The components

I worked with an experienced colleague at work who helped me pick out the components best suited for the task and within my price range, and settled on the following setup:

ASUS M2N-E Socket AM2 NVIDIA nForce 570 Ultra MCP ATX AMD Motherboard
AMD Athlon 64 3200+ Orleans 2.0GHz Socket AM2 Processor
1GB Kingston RAM
NEC ND-3550A 16X DVD±R DVD Burner
Seagate Barracuda 320GB 7200 RPM SATA 3.0Gb/s Hard Drive
Antec Overture II Piano-black/Silver Steel ATX Desktop Computer Case
2 x Hauppauge WINTV-PVR-150
Windows XP Pro SP2
SageTV v6 Beta

I purchased everything through NewEgg.com. Unfortunately, the Seagate Hard Drive was damaged with lots of bad sector errors, and the front of the Antec case had three broken clips, but RMA's to both Antec and NewEgg.com yielded quick replacements. Both Newegg and Antec provided great customer service, and I highly recommend them both.

While waiting for the new hard drive, I decided to install an older IDE Hard Drive to serve as the "OS Drive". I later added the 320GB Sata drive as a "media storage" drive. I did this to physically separate out the application from the data, improving performance and reliability. I'll probably replace the IDE OS drive with a small SATA drive in the future.

Setup was pretty straight forward. I installed Windows XP Pro, installed all the required drivers, and connected to the Internet to update to the latest drivers and download the latest apps. Next, I installed the two Hauppauge PVR-150 tuner cards, and the installed SageTV following the setup instructions. In short order, I was watching live TV and scheduling recordings.

OK, I have admit that it wasn't really that easy. I did have to content with a hard disk crash, and I messed things up in SageTV's configuration way beyond repair, so I did end up re-installing a couple times, but the truth is that setting up a SageTV system really is not a difficult process. It's not a newbie task, but you

certainly don't need to be a computer expert.

Video quality

One thing that bugged me was that I was quite disappointed with the S-video output quality on my TV. I tweaked and tweaked and tweaked my nVIDIA and SageTV settings, and it just wasn't what I had hoped it would be. Watching shows like Fox News or CNN Headline News seemed jerky and choppy. It was mostly noticable while watching the "crawl" at the bottom of both of these shows. After some advice from the SageTV forums, I purchased nVIDIA's PureVideo drivers, and the results on my S-video TV were worth every penny. It's still not as quality a picture as our Moxi DVR, but it does look good. Down the road, I'm planning on purchasing a new LCD tv, so that should significantly improve the picture quality over my old tube TV.

Plugins

I next visited the SageTV Customizations forum and found several excellent "plugins" that extended and improved some of SageTV's core functions. For example, I can now search the Internet Movie Database right from within SageTV with the results integrated very nicely. I next installed an enhancement to the "Stop" button function that adds much needed features. I also installed a Plugin that lets you customize all of the menus letting you order them as you wish, and add and remove entries. Finally, I installed a plugin that provides remote Web access that lets me manage SageTV's recording functions from anywhere I have Web access. It's so nice to be able to schedule a recording without having to be sitting in front of the TV. These plugins are excellent examples of how SageTV lets users tailor things to their specific needs.

Clients

I next installed the Hauppauge MediaMVP box. This is a small hardware device that connects to the network and any TV. It looks on the network for a SageTV server, and if it finds one, it downloads and runs a SageTV client application. It comes with a remote, so you can control all SageTV functions from another TV in your house. It was really cool to be able to start watching a recording in our living room, and then stop it and resume watching where we left off in our bedroom. And the MVP lets you also listen to MP3's and watch ripped DVD's.

I then installed the PlaceShifter client on my laptop. This client lets me remotely access SageTV from anywhere I have an Internet connection. We went on a vacation, and I was able to watch both live TV and recorded shows remotely. The quality was not great, but it was watchable.

What I now have

So I now have a Home Theater PC that provides two tuners (one analog cable, and one digital cable) for programming content, and I can add more tuners later if needed. We view everything through an older 27" tube TV, and it looks pretty good. The user interface is clean, and I have tweaked it to make it more intuitive for us. we can listen to my MP3 collection, and we can watch favorite DVD's. Every morning, we can check the latest weather conditions through SageTV. I was able to (fairly) easily burn to DVD a show that my parents had missed.

All of this was very seamless (except the DVD burning, but that's for another article) and all from a single box. For me, SageTV is what ReplayTV could have been...

The future

Our setup works very well, but like everything else, I have to look to the future. I am considering the following additions and upgrades:

- Add additional storage to accommodate more ripped DVD's. We have a sizable collection of DVD's, but it's so much easier to manage them and watch them if they are ripped.
- Move lots of other digital pictures over to SageTV.
- Organize and move lots of other MP3's over to SageTV.
- Upgrade our old tube TV to an LCD TV. I have been looking at a Westinghouse 42" LCD HD monitor, and it looks very, very nice for the money.
- Add a UPS to the mix for protection.
- Improve and simplify the DVD burning process.
- Investigate RAID or other backup method.
- Look into a Universal Remote to consolidate remotes.

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1. SageTV Tips

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Date

04/29/2024

Date Created

11/07/2006

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