



DWPC Technology Newsletter

Technology news from David W. Potts Consulting
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Welcome to the Home Theatre edition of the *DWPC Technology Newsletter*. I hope you find this information helpful. If you no longer wish to receive this newsletter, please send me an email, indicating such. If you received this newsletter from a friend and wish to be added to the mailing list, please email me at the address above and indicate your desire to receive the newsletter.

The underappreciated center speaker is one of the most important components of a home theatre audio system. With much material, the center channel reproduces most of the voices, and many other sounds. Often, the other speakers are silent, or nearly so. Voices can be difficult for speakers to replicate, accurately. As such, picking a suitable center speaker for your home theatre can add significant enjoyment to your home theatre experience.

Compensating for speakers and room acoustics can be accomplished with most of today's AVRs (Audio/Video Receivers), automatically, using a microphone (usually included with the purchase of the AVR). Many AVRs allow placing the microphone in multiple listening areas of the room, so the sound can be optimized over a larger area, or optimizing for a smaller area (the latter providing the best sound, but is localized to a specific area). These settings can be adjusted, after the optimization. When performing the speaker calibration, it is important to have furniture and other items in the locations where they will be while using your home theatre. Moving items, especially reflective items like tables or absorbing items like couches, can significantly change the acoustics of the room, which can require recalibration, for the best results. Some AVRs can save multiple room profiles, helpful if you have a small number of fixed furniture configurations you use in your home theatre space.

Should I purchase a TV/monitor or [front] projection system? We have a plethora of options when it comes to displaying our visual content. Flat panel TVs are available, using multiple technologies, at over 100" (the "image size" is always measured diagonally). Front projection systems can provide massive images (over 20 feet). For the best results, front projection systems should be used with the appropriate screen (with the appropriate "gain") and in relatively dim environments (especially with larger image sizes). Along with larger flat panel sizes come massive price tags, but a 1080p projector and 110" (8' wide, 16:9 aspect ratio) screen can be purchased for under \$1,000. Like most items, prices can rise with features and capability. Both flat panel and front projection systems can use 3D technology. Most projectors use replaceable lamps with a finite life. Generally, the life of the lamp is between 2,000 and 4,000 hours (approximately 1,000-2,000 feature length films). Often you can select a dimmer, "economy" mode, to extend the life of the lamp. Lamps can cost over \$300. Nothing kills an evening like having the lamp in your projector fail, during an event. Generally, you can't run to Freddie's or Best Buy to purchase a new lamp for your projector. As such, I like to keep a spare lamp for my projectors, just in case.

Projector technologies Once you opt to create a home theatre with a projector, you need to select the technology used in the projector. There are a number of different technologies used to project content, including [single-chip] DLP (Digital Light Processing), 3-chip DLP, [3]LCD, LASER and LED. DLP projectors use "micromirrors" to quickly turn each pixel on or off. The single-chip DLP projectors, with the exception of the LASER[+LED] single-chip DLP projectors, use a rotating "color wheel" to generate the different colors, which can cause a "screen door" effect when watching a scene with motion, especially while moving your eyes in relation to the screen. The [expensive] 3-chip DLP projectors have three DLP micromirror chips, one for each primary color, eliminating the need for the "color wheel" and the potential "screen door" effect. With the exception of LASER/LED, the other technologies use a single, white, light source, to project the image. All technologies, except LASER[/LED] and LED, incorporate replaceable lamps. The LASER[/LED] projectors incorporate LASERs (and, possibly an LED) as the light source(s) and LED projectors, as you likely guessed, use a high-power LED as the light source. At this point, LED projectors have much less brightness ("lumens") than the other technologies, but are also very compact. We can expect the brightness of the LED projectors to increase, as LED technology advances.

Who says the drive in theatre is dead? So, you purchased a projector for your home theatre. Have you considered taking it outside? There are many options for projecting a huge image, with multi-channel sound, outside. There are many options for your projection surface . . . anything from the side of a [light-colored] building to a tripod screen to an inflatable screen. The audio can be anything from a simple set of stereo computer speakers to a full 5.1+ channel system (or more). I like to keep things simple and easy . . . to a degree (OK, sometimes) . . . so I have opted for a 6' wide, tripod, screen (with gain close to a 1.0) and a 2.1 channel (high quality) PC speaker system. This makes the system quick and easy to set up and tear down, with adequate performance. Yes, this is 25% smaller than the screen in my media room and only has 2.1 audio, but, let's face it, it's for temporary use, in my backyard. If you have neighbors nearby . . . please keep them in mind . . . I did freak out some of my neighbors with some explosions while screening "RED" (Retired, Extremely Dangerous), in the backyard. Consider ensuring your movie ends no later than 10:00 PM, or invite your neighbors (or warn them, if they don't come, there could be some unusual noise . . . and ask for their approval). We do, after all, want to be good neighbors. OK, this is not really about a "drive in" theatre . . . but, with the appropriate technology, and enough parking space, recreation of the "Drive-in Movie" experience is certainly a possibility! If you want it, we can help make it your reality!

So, you want a killer home theatre . . . what's next? There are many options to consider for your home theatre experience . . . how many audio channels? What size screen? What technology? How many remote controls am I willing to use? Do I want a turnkey system, so I don't need to engineer the solution, myself? David W. Potts Consulting can help you with your decisions. A turnkey home theatre solution could be much less expensive than you think. Let us help you fill in the blanks, or create the entire solution for you. I will be happy to provide you with a demonstration of my system, and help you consider ideas for your ultimate home theatre . . . just give me a call or email me from the info at the top of page 1.

Microsoft announced Windows 10 will be available as a free upgrade to Windows 7 and 8.1 users. Windows 10 should be released near the end of 2015. Especially if you use Windows 8.1, this will be a must have.

Scam and Fraud Resources are available through the office of the Oregon Attorney General. As scammers are quickly creating elaborate ways to separate you from your money, I strongly suggest you use complex passwords, that you change often, and visit the Oregon Attorney General's Web site at www.oregonconsumer.gov, to keep abreast of newer scams and help learn ways to keep you and your family safer. You can also contact Ellen Klem of the Oregon Attorney General's office at ellen.klem@state.or.us or 503.507.1061.

Java Security Alert! As Oracle's Java continues to be a security risk, I am continuing to include warnings in my newsletters. Oracle has published a Web page that details how to disable the Java program. Please visit the page at: http://www.java.com/en/download/help/disable_browser.xml. If you do need to run Java, ensure you are using the latest release and remove any old versions. If you have any questions about this or other security issues (or any other computer questions), please feel free to contact David W. Potts Consulting and we will be happy to help you.

How do I . . . Please submit questions to me via email to the email address at the top of page 1. Questions may be answered in future issues of this newsletter, or may be addressed individually. I often have clients who exclaim, after my correcting their issue, how they have been frustrated by working on an issue for weeks before calling me. Often the problem takes less than an hour to correct. Many mention how, next time, they will call me first to avoid the frustration! I have helped people do things from selecting and programming a high-tech remote control to setting up a company's network infrastructure.

David W. Potts Consulting will be happy to assist you with your hardware, software and network selection, purchase, integration, troubleshooting and training. We specialize in Microsoft Windows computers and networking and can also assist you with home theatre and other electronics and technology consulting.

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