

## GIVING A WIRELESS iPad PRESENTATION Where Perfect Is the Enemy of Good

By Judge Herbert B. Dixon Jr.

The French author, philosopher, and poet François Marie Arouet, whose pen name was Voltaire, is credited with writing, “the perfect is the enemy of the good.” Over 260 years later, and an ocean away, I have adopted Voltaire’s pronouncement, at least as it relates to giving a wireless iPad presentation. Last year, I purchased my first Apple computer product, an iPad 2, and have been consumed ever since with the concept of giving wireless presentations using the device. For some unexplained reason, I imagined the ultimate power presentation as the occasion when I could walk around the room during my presentation, iPad in hand, and wirelessly project the image from my iPad to the large video displays being viewed by the audience. Finally, I achieved my goal, but the result is only good—not perfect.

I discovered during my research that others were trying to achieve the same goal, often raising the issue on blogs and in tweets and finding no solution. I assume Apple knew of these inquiries, but I am not aware they ever gave a corporate response. In hindsight, it seems they were keeping secret a new feature they planned to introduce at a later time.

Along the path to my goal, I found a way to configure my iPad as a second monitor and wireless touchscreen for my laptop (showing the same image on my iPad as on the laptop), which gave the appearance of wirelessness as I operated the slide presentation on my laptop from my iPad. I have included an author’s note at the end of this column describing the process to achieve this result.

A few months after my iPad purchase, Apple introduced a new operating system for the iPhone and iPad, iOS 5. Upon installing this new operating system on my device, I suddenly had the capability



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to accomplish the desired task, but only if I were willing to do extra work to reach my desired goal. Once again, the results were good—not perfect—but I’m happy.

Here is what you need to make a wireless presentation by iPad:

- An iPad 2 with iOS 5 installed;
- An Apple TV device (second generation) (a small “black box”—accurate description—slightly larger than a deck of cards that costs approximately \$100);
- A wireless network (this was a real learning experience that I shall describe later);
- A video display (projector or monitor); and
- A digital HDMI (high definition multimedia interface) cable to connect the Apple TV to the video display.

However, if you’re like many of us whose equipment does not have an input port for a digital HDMI cable, and there exists only a port for an analog VGA (video graphics array) cable to connect your laptop to the video display, you’ll also need:

- A powered HDMI to VGA converter (\$40 minimum, approximately).<sup>1</sup>

I first set up this system at home using my HD TV that has a port for HDMI input. My home wireless network is secured by a password, which did not present a problem. The Apple TV has a remote control and an onscreen feature that allows password input.

I will not bore you with the full setup procedure contained in the accompanying Apple TV instructions, but there is one part of the process that took a while to figure out. I don’t know why I had to do this, but there are others that have described the need for a similar process. After everything is connected, play a video on your iPad (a YouTube video will work just fine if you don’t have another video on your iPad). Next, double tap the home button to reveal the task manager (showing all the apps that are open on your iPad). Swipe the task manager from left to right as many times as it takes to get you to the player controls. Press the



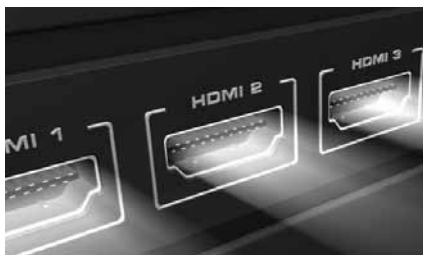
VGA cable



VGA port



HDMI cable



HDMI port

AirPlay button (between the forward and volume controls), select Apple TV, and click the Mirroring button to change from “off” to “on.” Close out the video and go back to the controls (double tap the home screen, swipe the task manager from left to right, etc., as explained above). The purpose behind all of this is to mirror on your iPad the same image that you are transmitting to the Apple TV over the wireless network. The rest of the setup process can be gleaned from the instructions that come with the Apple TV.

The Apple TV setup display took up the full screen of my home HD TV, the same as happens with a presentation from my laptop, but my iPad display was closer to a square image, centered on the TV screen—so far, so good—but not perfect.

Next, I attempted to set up the system to display my iPad images on a computer monitor that did not have a digital HDMI port but was equipped with a standard VGA input cable. This required me to connect the HDMI cable from the Apple TV to the powered HDMI to VGA converter, and the monitor’s VGA cable to the converter’s VGA output port. The

Apple TV setup display took up the monitor’s full screen, but the iPad display, once again, was closer to a square image. Inexplicably, a new issue arose. The image was not centered on the left side of the screen. It was aligned on the left side of the screen.<sup>2</sup> Once again, good—but not perfect.

Now I was ready to attempt my setup in my assigned D.C. Superior Court courtroom where I frequently give presentations. The setup in this courtroom is very similar to other venues in which I have presented, where the input is solely by way of a VGA connection. This was another learning occasion.

There is Wi-Fi available through most of the courthouse that is greatly appreciated by the public, and the Wi-Fi signal reaches my assigned courtroom. After I connected all of my devices, I turned on the Apple TV. It connected to the courthouse Wi-Fi with no problem to that point. As with many public Wi-Fi services, however, your browser will first incur a “terms of use” page that the user must agree to accept before the Internet can be accessed. I could not find a browser or any other feature on the Apple TV that would allow me to see and accept the terms of use. Accordingly, my Apple TV was stuck on the terms of use page and could not communicate with my iPad. I thought I had hit a permanent roadblock, but the solution was simpler than I expected. I powered up an old wireless router in the courtroom. This router, without need for a connection to the Internet, provided the wireless network that allowed the Apple TV and my iPad to communicate (both the Apple TV and the iPad must sign on to the wireless network provided by the router). Many folks are amazed to realize that the “wireless network” between the Apple TV and the iPad does not mean Internet connection. I used an old wireless router, but you can also use Apple’s AirPortExpress device to accomplish the same result, which is another outlay of funds if you don’t already have the device.

Good—but not perfect—is how I describe my results with wireless iPad presentations. There are still other issues

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to tackle, including finding an effective way to transmit sound from the iPad to the Apple TV. Also, the screen resolution is not as crisp as when the presentation is done with my wired iPad connection or my wired laptop. It would have been nice if the Apple folks had built in a VGA port or DVI port (which is easily converted to VGA) to avoid the need for the user to purchase a powered HDMI to VGA converter, even if that extra feature added to the price of the Apple TV unit. And it would likewise have been wonderful if the Apple TV included its own Wi-Fi access point to avoid the purchase of a spare Wi-Fi router and the problem of public or other unreliable Wi-Fi.

The necessary extra equipment that I have described in this column to accomplish the goal of making a wireless presentation with an iPad is a nuisance. However, if I were to wait for a perfect system, I’d end up doing nothing. And, I must admit, there is a certain thrill to walking around with an iPad making a wireless presentation. The process is new and amazing to

many in the audience who have not previously seen a wireless iPad presentation. The novelty factor will exist long into the future. I'll accept the good for now—even if I know it's not perfect. ■

**Author's note:** At the beginning of this column, I mentioned my early search to accomplish a wireless iPad presentation during which I found a way to configure my iPad as a second monitor and wireless touchscreen for my laptop (showing the same image on my iPad as on the laptop). This gave the appearance that I was making a wireless presentation as I operated the slide presentation from my iPad. But, in reality, it was my laptop that was connected to the video display being viewed by the audience.

To accomplish this setup, obtain an app called AirDisplay for your iPad from the Apple App Store (approximately \$10). Next, use your favorite Internet search engine to find AirPlay for Windows (or MAC) and then download and install AirDisplay on your laptop. Ensure that both your iPad and laptop are logged onto the same wireless network. Open the AirDisplay app on your iPad and select your iPad from the AirDisplay menu on your laptop. Now your iPad is mirroring the screen on your laptop. If not, go to System Preferences to confirm that the "Mirror Displays" box is checked. At this point, your iPad is a second monitor and wireless touchscreen for your laptop. Now you're ready to make your next presentation giving the illusion that you are doing this wirelessly from your iPad.

## Endnotes

1. You can try a \$3 passive (not powered) HDMI to VGA cable, but every report that I read said this will not work because a passive cable will not convert the Apple TV signal from digital to analog.

2. I tried at least two powered HDMI to VGA converters, both of which gave similar results. I've also read reports of the same result using other powered HDMI to VGA converters. As one writer described it, there must be some issue that prevents the converters from properly aligning the image on the screen.