

THE DIGITAL SWITCH:

WHAT YOU NEED TO KNOW



It's Official

On February 17, 2009, television as we've known it will end and a new era of viewing and learning will begin. As mandated in 2006 by Congress and the Federal Communications Commission (FCC), all television stations across the country will transition from analog broadcasts to digital television (DTV). To help you get digital-ready, we've put together a list of DTV facts so you can make the switch without missing your favorite programs on WSIU Public Television.

The Basics

What is Analog Television?

Analog television, the traditional over-the-air TV system, transmits pictures and sound on separate signals via continuously varying radio waves.

What is Digital Television?

Digital television processes picture and sound as "data bits" of binary code ("1s" and "0s") – the same way in which computers process information.

Why the Switch?

In the mid-1990s, Congress determined that broadcast stations must transition from analog to digital television broadcasting and return their analog spectrum to the FCC. In 2006, Congress set February 17, 2009 as the official date for conversion from analog to digital. This pivotal change has been mandated for several key reasons.

First, converting to DTV will release much-needed broadcast spectrum for public safety and other uses. These services include police, fire, and emergency rescue, as well as advanced wireless services for cell phones, pagers, and other systems.

Second, DTV is more efficient and reliable than analog television, offering vastly improved and more reliable picture and sound quality. Unlike digital, analog transmission is susceptible to interference caused by

weather, terrain, buildings, and even airplanes overhead, resulting in "snowy" pictures and spotty audio. DTV can also be used for interactive video and data services, such as enhanced closed-captioning.

Third, DTV uses far less bandwidth, so stations can "multicast" – or, provide multiple channels of different programming using the same amount of space. In the same bandwidth WSIU uses for our current analog channel, we will be able to broadcast multiple channels in several formats:

- **standard digital television (SDTV)** – SDTV provides higher quality pictures and video than analog, and can include widescreen format. [WSIU currently broadcasts several SDTV channels. See other side of this handout for details on WSIU's digital channels.]

- **high-definition television (HDTV)** – HDTV is displayed in widescreen format and offers visual clarity up to six times sharper than an analog picture, more accurate color, and Dolby digital surround-sound. [WSIU launched WSIU HD, our high-definition channel, on January 8, 2008.]

In the future, WSIU may also provide "datacasting", which will allow us to embed teacher guides, photos, recipes, and other materials in the broadcast signal for downloading during TV viewing or storing for later use.



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Be more **connected**



What You Need To Do If...

- You have an analog TV set, don't subscribe to a cable or satellite service, and get WSIU's over-the-air signal using an antenna



You will need to purchase a digital-to-analog TV set-top converter box for each analog TV set in your home and to continue to use your set-top or rooftop antenna. The converter box, which plugs directly into an audio-visual (AV) input on the back of your TV, converts digital signals into analog so you can continue to view the WSIU programs you've always enjoyed. However, you will not experience the improved visual and audio quality of digital television.

About Converter Boxes: To offset the cost of purchasing converter boxes, the federal government is offering each U.S. household two coupons worth \$40 each. Coupons are now available and may be requested by calling 1-888-DTV-2009 (hearing impaired TTY, 1-877-530-2634). Or, go online at <http://mydtv2009.gov>.

Converter boxes are priced between \$40-70 each and will be available at over 200 retail outlets, including Best Buy, Circuit City, Kmart, Radio Shack, Sears, Target, and Wal-Mart. Converters certified for purchase with the federal coupons include Digital Stream, Zenith, Magnavox, and Philco, but others are in development, so review your options carefully before purchase.

- You have an analog TV set and antenna, and subscribe to a cable or satellite provider

Cable and satellite providers will provide the digital-to-analog conversion at their end, so you should be able to continue to watch WSIU's programming uninterrupted after the February 17, 2009 analog shutoff date. Contact your provider for details on whether your local channels will be free. To enjoy free over-the-

air HD and SD local channels, you may need to continue to use an antenna.

- You have a digital TV set, are not a cable or satellite subscriber, and get programming over-the-air

You should be able to tune in to WSIU's digital channels using a set-top or rooftop antenna (dependent on distance from our transmitter and/or topography). If you have an SD television, you will not experience the best picture quality of WSIU's HD channel, although you will enjoy CD quality sound.

- You have a digital TV set and subscribe to a cable or satellite provider

You will be able to view the WSIU digital channels carried by your cable or satellite provider. Check with your provider to find out which WSIU digital channels will be available and whether your local channels will be free. To enjoy all free over-the-air HD and SD local channels, you may need to use an antenna. Contact your provider for more information.

- You wonder if your existing VCR, DVD player, and camcorder will work with DTV.

Your existing analog equipment will work with digital television sets, but not in high-definition. The video quality will be displayed at the maximum resolution of each device attached to your TV.

- You are concerned how the switch will affect closed captioning.

FCC rules require that all digital-to-analog converter boxes pass through closed captioning automatically. In addition, many converter boxes will generate captions through the converter box itself, thus enabling you to change the way your captions look. If you have a digital TV, you'll enjoy better visibility and ease of use. To learn more, visit the websites noted below.

*WSIU Digital Channels

WSIU HD (Channels 8.1, WUSI 19.1) – High-definition (HD) programming from the PBS HD Channel

WSIU 2 (Channels 8.2, WUSI 19.2) – Standard digital (SD) version of WSIU's current over-the-air analog signal. *Includes local WSIU programming.*

WSIU 3 (Channels 8.3, WUSI 19.3) – CREATE channel featuring PBS "How-To" programs (SD)

WSIU 4 (Channels 8.4, WUSI 19.4) – Mix of national PBS programming that closely follows WSIU's weekday primetime schedule

**Channel format/lineup subject to change*

WSIU Digital Contacts



For questions about the digital transition, contact:

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Visit WSIU online: www.wsiu.org

Online Resources



Learn More About DTV

<http://www.dtvanswers.com>
<http://www.dtvtransition.org>
<https://www.dtv.gov>
<http://www.wsiu.org/dtv> (after 3/1)

Choose An Antenna

Outdoor or indoor? Small or large? Find out how to choose the right antenna for your home at:

<http://www.antennaweb.org>