



# Automatic Camera Switching with a VBrick Appliance

A decorative background consisting of a grid of squares in various shades of green, with a diagonal line cutting across it from the top-left to the bottom-right. The squares are arranged in a pattern that tapers to the right.

**White Paper**

## Background

The full experience of many classrooms or conference rooms cannot be adequately reproduced with a single, stationary, camera. This limitation leads to the use of either a human camera operator or the installation of complex Audio/Visual switching equipment and expensive tracking camera systems.

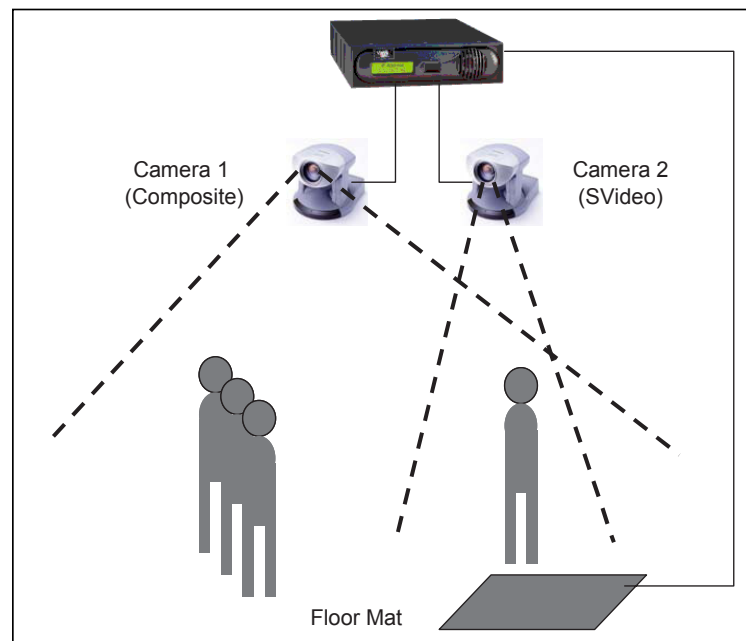
In most cases, two video camera views is all that is really required: one for the instructor in their "normal" position (e.g. behind the podium), and one wider angle view that captures another more general view of the room.

## Automatic Switching

VBrick encoding appliances have always supported two video inputs that can be programmatically controlled to switch the video input between composite and SVideo. Firmware release 3.2 and above (available since 2004) made it possible to control this built-in video switch via a floor mat or other presence detector.

For example, by simply placing a floor mat in the desired position, the VBrick will automatically switch to "Camera 1" when someone steps on the mat, and will switch to "Camera 2" when they step off of the mat.

The illustration shows the setup. Camera 1 is connected to the VBrick composite video input, and Camera 2 is connected to the VBrick SVideo input. Audio is provided from a conventional wireless microphone or a room audio system.



Camera 1 is focused on a wide view of the front of the room. Camera 2 is focused on a close-up view of the speaker at a podium. When the speaker stands at the podium, the VBrick switches to Camera 2, and when the speaker steps off the mat, the VBrick switches to Camera 1. The switching is instantaneous.

Of course, other setups are possible. The main view from camera 1 may be the close-up of the podium while camera 2 may be a close-up of a white board with the mat located there.



## Installation and Setup

The standard mat is 18" x 24" (larger sizes are available) and comes with a standard 20-foot cable that plugs directly into the VBrick "COM1 Port". Simply place the mat where desired and plug it in to the VBrick. You may extend the cable using standard RJ-45 CAT-5 Ethernet cable.

Download <http://www.videoalive.com/eventscripts/cameracontrol.zip>

Unzip the file and copy the file to your VBrick:

1. Log into the VBrick web management interface
2. Select Configuration/Script Management and select "[Click here to read or write script files](#)". Enter the VBrick username/password to access the VBrick file system.
3. Copy "COM1PIN7HIGHEVENTSCRIPT.TXT" and "COM1PIN7LOWEVENTSCRIPT.TXT" to the VBrick and close the FTP window.
4. Select "[Begin Edit](#)", and enable "[COM1 Pin 7 High](#)" and "[COM1 Pin 7 Low](#)". Select "[Apply](#)" and save your configuration.
5. Navigate to Configuration/Passthrough. Select COM1 and set to Passthrough State to "[Responder](#)". Select "[Apply](#)". Set RTS and DTR to "[Force High](#)". Select "[Apply](#)". Finally, save the configuration.
6. Connect a video source to the composite input and a different video source to the SVideo input. When you step on the mat, the video will switch.

## Archiving Sessions

The VBrick may or may not be configured to stream the live video to remote viewers, but either way the VBrick with an internal hard drive can automatically capture the video within the VBrick itself, allowing instant local playback and immediate publishing to up to eight streaming servers or web servers.

The recording may be initiated via several optional mechanisms:

- Centrally scheduled (for example for one or for many rooms).
- Scheduled within the VBrick itself.
- Started ad-hoc by the classroom via computer, via 3rd party control (AMX, Crestron, Videoalive) or by IR Remote Control.
- Detection of pressure on a mat: using a technique similar to camera switching, the VBrick may be configured to record while the mat detects presence, or to start recording for a specified duration upon presence detection.



### About VBrick Systems, Inc.

VBrick is the leader in Enterprise IP Video solutions, with over 6,000 corporate, education and government customers and 60,000 installations worldwide. VBrick solutions work over standard IP networks and the Internet to deliver rich media communications that connect people everywhere – from employees and customers, to partners and shareholders. Our comprehensive product suite and end-to-end solutions are used in a wide range of live and on-demand applications including meeting and event broadcasts, distance learning, digital signage, TV distribution, video surveillance, and Web-based marketing campaigns. Headquartered in Wallingford, CT, VBrick's products and services are available through industry-leading value-added resellers.

For more information, visit [www.vbrick.com](http://www.vbrick.com)