

## How to Build a Room System

This paper is intended to give general guidelines to customers regarding how to integrate the VCON HD4000 application into a PC with peripherals, in order to create a high-quality group system. Certain vertical applications may require more and/or different types of peripherals than the ones listed and suggested here.

### **PC Requirements:**

(The PC requirements listed here are very specific and must be adhered to in order to obtain maximum video and audio quality using the HD4000 videoconferencing application.)

- Pentium D 3.0 GHz (or higher) PC
- 800 MHz BUS Hyperthread CPU
- 1 GB 400 MHz RAM
- Windows XP Professional operating system
- ATI x 1300/2400/2600 PCIx display card
- AverMedia PCI capture card
- Creative SoundBlaster Live 7.1 (recommended)
- 1xComm port for camera PTZ control
- 1 USB port for the VCON USB authentication key (if used).

### **Required peripherals:**

- PTZ Camera: Sony EVI-D100 (recommended), Sony EVI-D70 and Canon VC-C4/C5 cameras are the types of approved cameras.
- Omni (recommended) or Uni-directional tabletop microphone: Type of microphone will be determined by the room and location of the system
- XGA Monitor or Wide Screen Display (see "Display Recommendations Guide" on the HD4000 web page for more information on how to choose a monitor/display)

*All of the above peripherals can be purchased from VCON.*

### **Optional peripherals:**

- Wireless keyboard and International Remote Control (VCON accessory)
- Document camera
- Audio mixer (when multiple microphones are needed)
- Rollabout cart

- Speaker system (2 speakers and subwoofer)

*All of the above peripherals can be purchased from VCON.*

**System placement and configuration suggestions:**

For **classroom or training room settings**, a dual monitor display works best especially when data is being shared between multiple locations. Document cameras can also be very useful in sharing information. Having two PTZ cameras (one placed at the front of the room facing the students and the other at the back of the room facing the teacher) is optimal. Additionally, having an audio mixer that has multiple microphones works best in distance learning environments, as well as a speaker system with speakers placed at the front and back of the room. A wireless keyboard is usually the preferred device in this type of environment.

For **boardroom settings**, a wide screen display (LCD or plasma) at one end of the room is a popular configuration. For audio, either one omni-directional microphone or dual uni-directional microphones are optimal. A remote control is usually the preferred device in a boardroom. Speakers should be placed on either side of the display at the front of the room.

For **small workgroup settings**, where data sharing will play a large role in the videoconferencing sessions, a dual monitor system is recommended so that data can be on one monitor and the remote video on the other. A popular setup is to have two monitors on a single cart in the front or corner of the room, with a single microphone in the middle of the table. Both a wireless keyboard and remote control device are useful with workgroups. Sometimes document cameras can play a large role in this type of environment. Depending on the size of the room, speakers may not be needed; the speakers built into the monitors may be sufficient.

For **executive office settings**, a single, large screen display (i.e. 30" LCD) set on a cart towards the back of the office, across from the executive's desk is the optimal setup. The control device (either a wireless keyboard or remote control) is up to the individual. Depending on the size of the room, speakers may not be needed; the speakers built into the monitors may be sufficient.