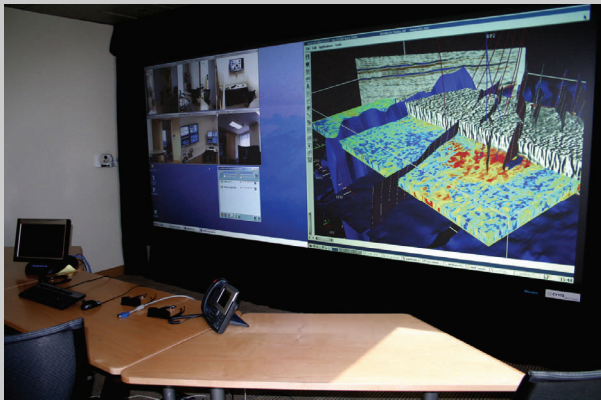


inSORS Grid Room System Installation Guide

May 2006



Introduction

inSORS Grid is a state-of-the-art software-based system that supports a highly scalable, geographically distributed collaboration environment. IG2 utilizes globally distributed inSORS Unified Collaboration Grid servers that optimize any IP connection for client endpoints while managing long-haul connections between regions. IG2 Node (client endpoint) software supports any Windows 2000/XP or Macintosh (PowerPC) computer with form factors ranging from handhelds to large conference rooms, command centers, and auditoriums.

This installation guide covers integrated multimedia room system installation, including hardware, wiring, and computer configuration. Installation requires AV and/or IT professionals. Please consult your local IT or inSORS Support for more information.


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inSORS Grid System Components

inSORS Grid is a software-based collaboration system that utilizes off-the-shelf hardware components, including computers, displays, cameras, microphones, and speakers. Please see your inSORS Node Components List for specific quantities of each item. Although many of these components came with your inSORS system, please refer to the instruction manuals that came with each component for specific safety and installation information. Web addresses for the manuals for individual components can be found by following the web links included in this installation guide. Please contact inSORS Support (312-786-9169x3 / support@insors.com) for assistance at any time.

High Performance Workstation
inSORS uses Dell or HP



WINNOV
Winning Through Innovation

4400 VO Video Capture Card

www.winnov.com



CREATIVE

Sound Blaster Live! 24-Bit

<http://us.creative.com/>




vaddio

Model 70

Camera, Mount, and Wiring System


www.vaddio.com

Vaddio Wiring Adapter




Sony EVI-D70 Pan-Tilt-Zoom Camera

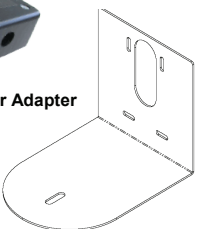
Cat-5 Video/Power Adapter



AC Adapter



Vaddio Wall Mount



CABLES





- RCA-type composite video cable
- Plenum-rated Cat-5 cables
- Power cable

ADAPTERS

- Composite to BNC adapter
- Cat-5 Serial Adapter

ACCESSORIES

- Remote (Do not use with inSORS system)
- Ceiling Mount (See Vaddio instructions)
- Screw/Washer Kit

 Video
 Cat-5
 BNC Adapter
 Cat-5 Serial Adapter


inSORS®

IGCube

Mini-Rack or IG2Tray


www.insors.com/support

IG Cube Mini-Rack




Get IG2Tray Picture

IG Cube Patch Panel



Lighted Power Strip (American DJ)



ClearOne Communications

Converge 560/590

Echo-canceling Sound System

<http://www.clearone.com/>

Clear One Mixer



ClearOne Mic Boxes



Audio Technica Tabletop Micro-



ClearOne Remote Telephone Control



Mic Box Rack-Mount (Do not use.)



CABLES

- Cat-5 Patch Cables
- 1/8" TS to RCA-type Audio Cables


ADAPTERS

- DCI-VGA Adapters
- USB-Serial Adapter

ACCESSORIES


- Mixer Rack-Mount Accessory
- Power Supply
- Mic Box Rack-Mount (Do Not Use. Install microphones in floor boxes.)

Evid Speakers



Displays

May be Projector, Flat Panel, Rear Projection or any large format display



Wireless Keyboard / Mouse

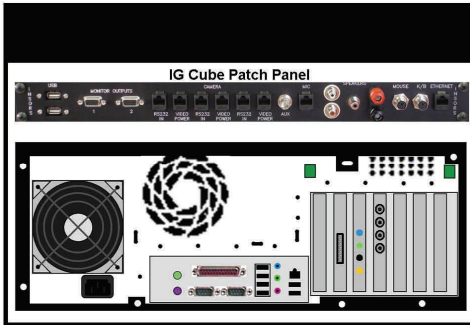
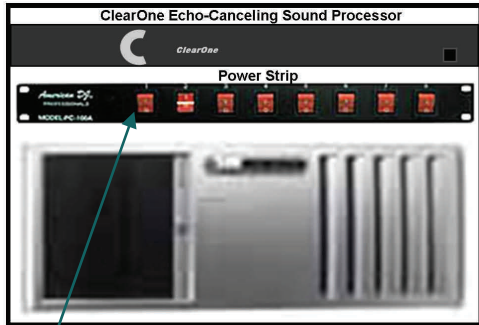


Please check your inSORS Node Components list for specific equipment. Please contact inSORS Support (312-786-9169x3) if anything is missing.

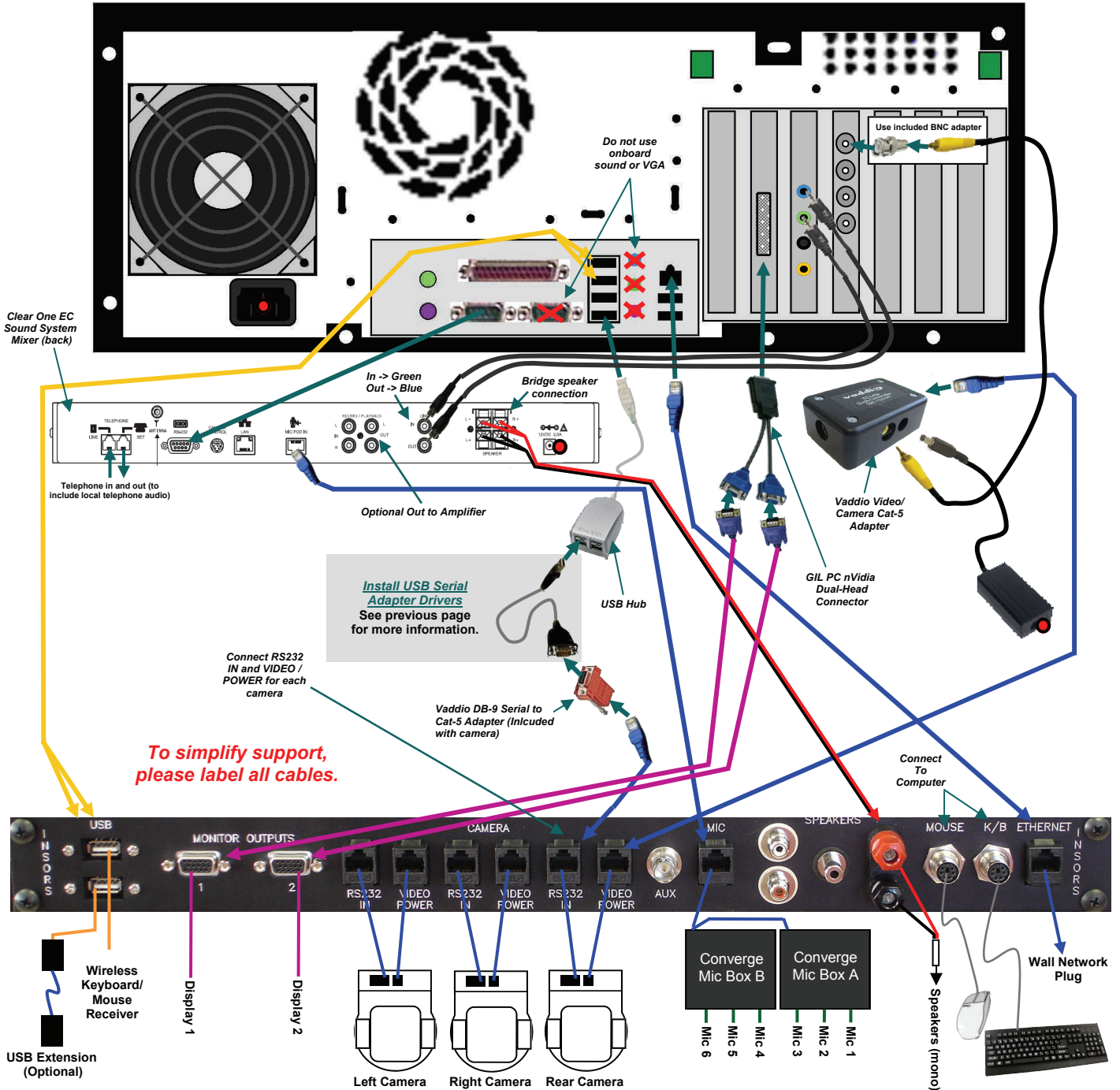
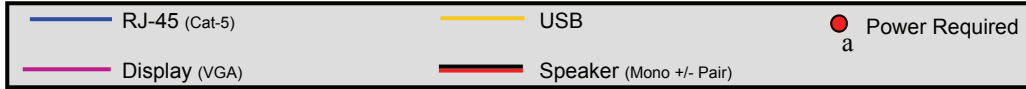
IG Cube Mini-Rack Components

FRONT

BACK

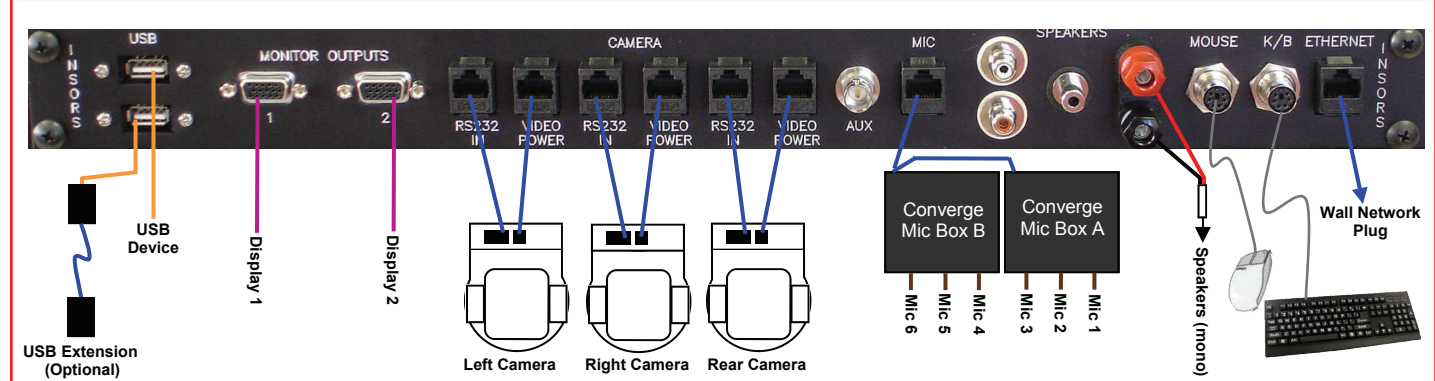
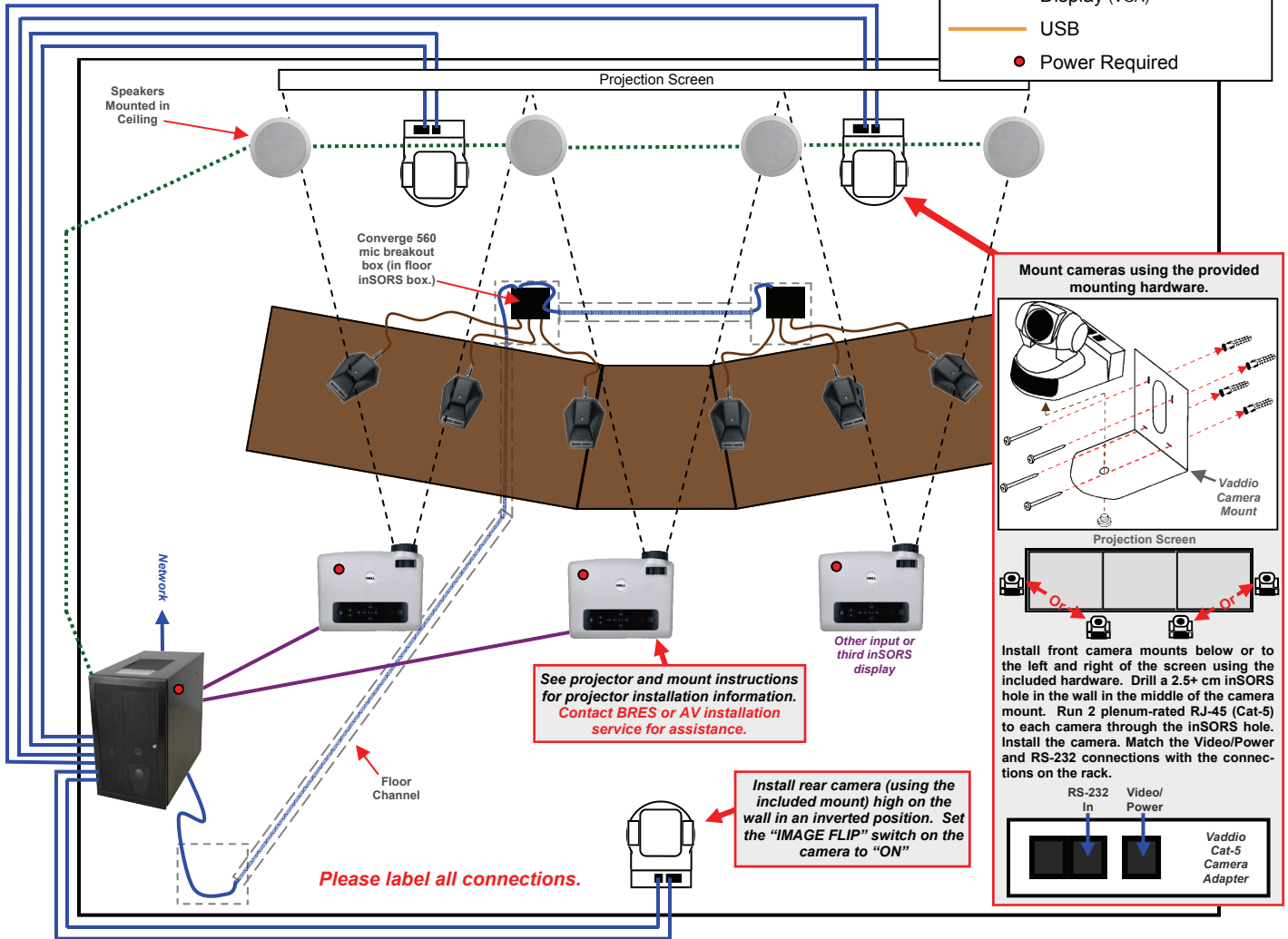


Label Switches



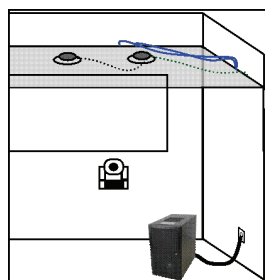
This document demonstrates equipment layout and wiring for a typical inSORS Grid room installation. Please use your best judgment when planning room layout and equipment placement. Installation requires professional AV or building services. Please see component manufacturers' instructions form more information. Contact inSORS Support (312-786-9169) for information or assistance.

- RJ-45 (Cat-5)
- Microphone (XLR to Mini-XLR)
- - - - Speaker (+/- Pair)
- Display (VGA)
- USB
- Power Required

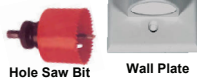


Cable Management

Run Wires Through Walls and Ceiling

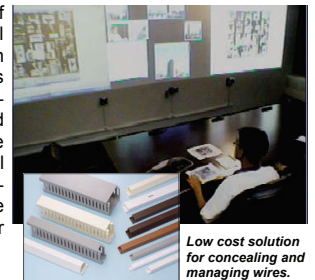


In an ideal inSORS Grid room, the wires are installed in the walls, floors, and ceiling, with very few wires visible from the room. In-wall wiring installation requires professional AV installation services. Your location may have a contractor for AV installation.



Use Wire Ducts Outside of Walls

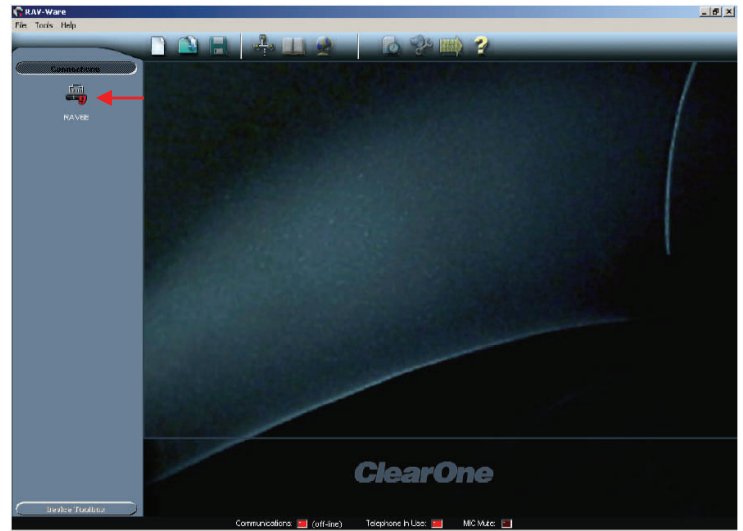
If installation services are not available, or if conditions or budget do not allow for in-wall installation, wire ducts are a good solution for concealing and managing the wires required for an inSORS Grid room installation. There are many shapes, sizes, and colors of wire ducts. Please check with the supplier of your choice, or consult your local AV installer. Note: Ceiling-mounted microphones and stand-mounted speakers are available. Contact inSORS Support for assistance.



ClearOne Rav-Ware Setup

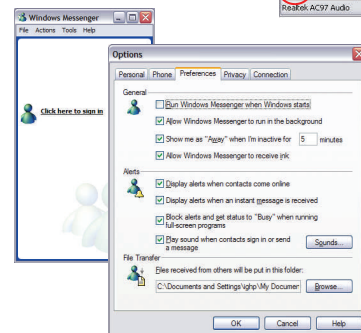
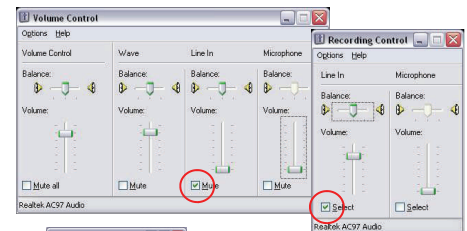
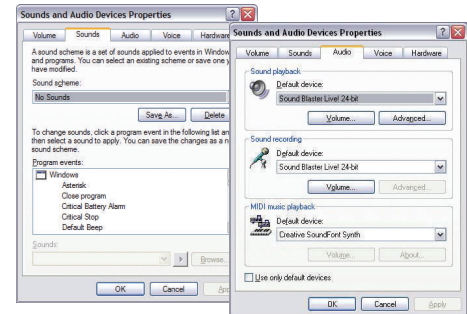
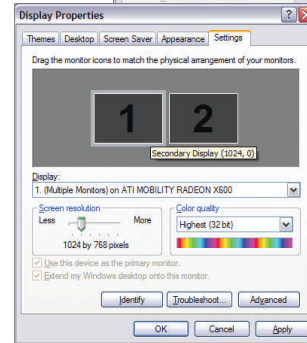
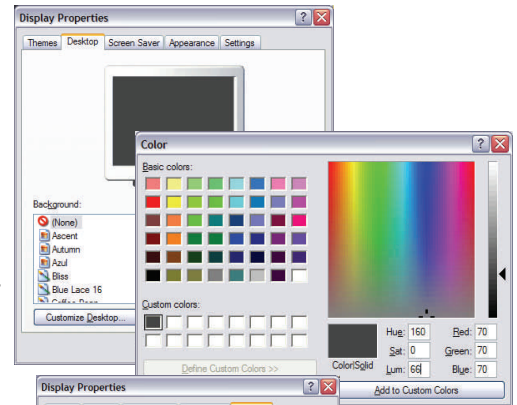
The ClearOne was pre-set before leaving inSORS. Please use these instructions if changes have occurred.

1. Insert the Rav-Ware CD-ROM included with your ClearOne Converge or Rav sound system.
2. Install the Rav-Ware application and follow the instructions as they appear on your screen. (Please see the ClearOne installation manual for more information.)
3. Copy the site specific RAV backup files or you can obtain generic ones from inSORS Support and extract all files to C:\Program Files\ClearOne\RAVWare Software\Data
4. Open Rav Ware (Start > Programs > Rav-Ware > Rav-Ware.exe)
5. Select the device listed in the column on the left Connections pane of the Rav-Ware configuration window.
6. From the File drop-down menu select Import File
7. Select the file that you downloaded in step 3
8. Click the Mixer Console to check microphone levels and adjust as needed.
9. Save the configuration file and exit the program.



Windows Configuration for inSORS Grid Computers

1. Right-click on the desktop and select Desktop Properties. Under the Desktop tab, select None for your Desktop Background, and then select Other under the Color: dropdown menu. Set Hue=160, Lum=66, and R, G, and B = 70. (This will ensure that projectors and flat-panel displays can auto image blank desktops, and the desktop color will not cast an eerie glow over meeting participants.)
2. Under the Screen Saver tab, disable the screen saver (select “None”_ and click the Power button. Set the monitor to never turn off.
3. Under the Settings tab, enable your second display (if used) and set the resolution of both displays to 1024x768 pixels
4. Open the Sound and Audio Device Properties in your Control Panel. Under the Sounds tab, select No Sounds.
5. Under the Audio tab, select Creative Sound Blaster Live 24-bit (or alternative sound device) as your default sound device for both sound playback and sound recording. Under Sound playback, make sure the Volume Control and Wave levels are set at a reasonable level (> 75%) and that Line In is muted (so that you will not hear your own microphones.) Close the Volume Control, and in your Sound and Audio Devices Properties (Audio tab), click the Volume button under Sound recording. Make sure Line In is checked and set to a reasonable level (< 50%). Close the Recording Control window.
6. Set start menu, taskbar, and other system preferences.

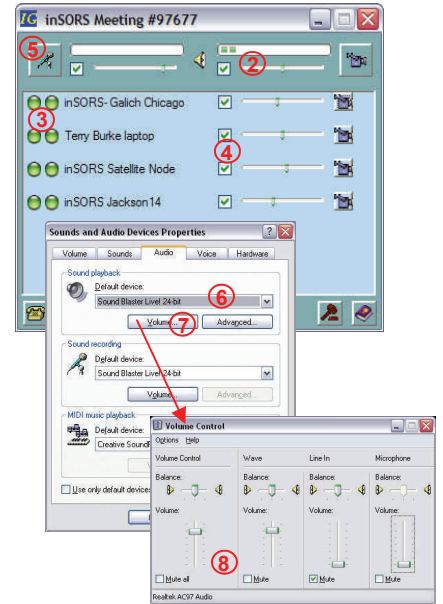


inSORS Grid Troubleshooting

AUDIO

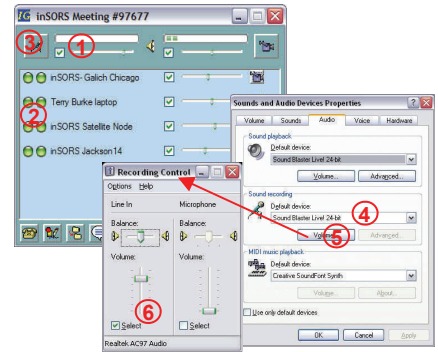
Not receiving sound from other nodes.

1. Make sure that the remote sites are sending audio
2. Make sure the volume slider is set appropriately, the listen box is checked, and the listen meter is showing activity
3. Make sure the remote site is active on the remote participants list. The circle on the right next to their site name should be green if the transmission is functioning normally. If the circle is gray, red, or yellow, check your network connectivity. Contact your administrator, AG COE or inSORS Support for assistance.
4. Verify that the check box next to remote sites is checked and that the volume meter is set to an appropriate level.
5. After following steps 1-4, if the listen meter is showing activity and you still do not hear audio, make sure your speakers/amplifier are properly plugged in and turned on. Click the microphone icon and select Audio Properties. (If the listen meter does not show activity, other sites may not be sending audio, or network problems may exist.)
6. Make sure the correct Sound Playback device is selected from the Default devices menu.
7. Click the Volume button under Sound Playback to bring up the Windows Volume Control.
8. Make sure Volume (or Main) and Wave are set to an appropriate level and that their respective mute boxes are not checked. (Line in and Microphone should be muted in this window.)
9. If you are using a virtual room (under Favorite Rooms) that requires encryption, verify that your node and the other nodes are using the same encryption key (case sensitive). First, re-enter your meeting, then click Yes when asked if you have an encryption key.



Other node(s) not receiving audio.

1. Verify that the Talk box is checked, the talk volume slider is at an appropriate level, and that there is activity on the Talk meter when you speak.
2. Make sure the remote site is active on the remote participants list. The circle on the left next to their site name should be green if the transmission is functioning normally. If the circle is gray, red, or yellow, check your network connectivity. Contact your administrator, AG COE, or inSORS Support for assistance.
3. If no activity is showing, verify that your microphone/sound system is properly plugged in, and then click the Microphone icon and select Audio Properties.
4. Make sure the correct Sound recording device is selected from the Default devices menu.
5. Click the Volume button under Sound recording to bring up the Windows Recording Control.
6. Verify that the Line in is selected and not set to zero.



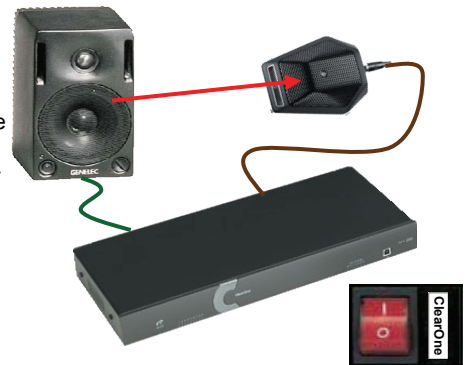
There is audio echo in the session.

Audio echoes are caused by sound from the speakers being fed back into the local microphones. The use of an echo-canceling device is required to prevent this.

When you are hearing your own audio echoed back to you, it is a remote site that is the source of the problem. If other sites indicate that they hear echo, but you do not, your site is causing the echo. The site causing the echo does not hear the echo. If you hear echo when multiple sites are in a session, mute individual sites in the inSORS meeting control window until the echo is no longer heard. The last muted site is causing the echo.

The site that is causing echo will need to reset their echo canceling device by unplugging or turning off the power for a few seconds and plugging it back in. A chirp will be heard through local and remote speakers as the echo-canceling device adjusts to the local ambient noise.

Echo issues can be very complex to troubleshoot. If resetting the echo-canceling device does not correct the problem, contact your site admin, AG COE, or inSORS Support.

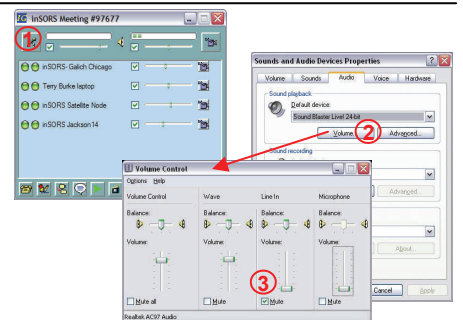


Power cycle echo-canceling sound device to correct echo issues.

I hear my own audio coming out of my speakers.

This happens when your input device (Line in) is available as an audio output source. Follow these steps to correct the problem:

1. Click the Microphone icon in the IG Meeting Window and select Audio Properties
2. Click the Volume button in the top, "Sound playback" section
3. Make sure that Line-in is muted as an audio output source.

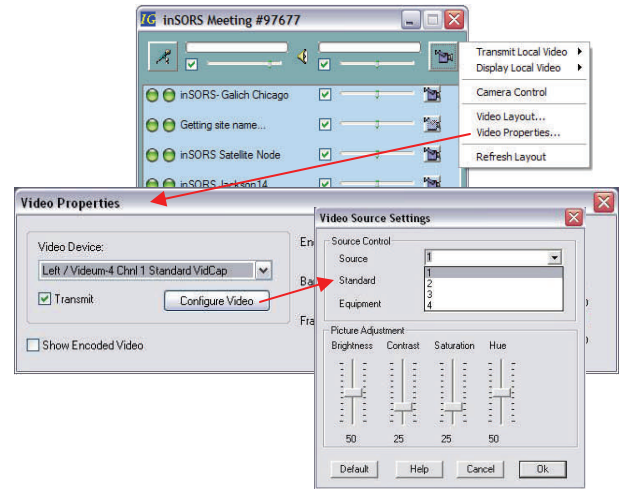


VIDEO

My video views appear black when I start my first session.

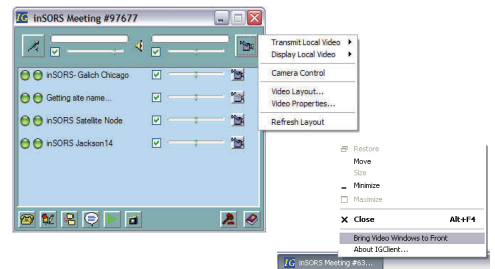
(This may occur if you use the Winnov 4XXX VFW drivers.)

1. Verify that your cameras are turned on and plugged in and properly configured in IG Node Configuration (Page 9).
2. Click the Video Camera icon in the top right corner of the inSORS meeting control window and select Video Properties.
3. Select each active (labeled) camera individually in the Video Device drop-down list.
4. For each camera, click the Configure Video button.
5. Make sure the correct source is set for each camera.
6. Repeat steps 3-5 for each camera used.



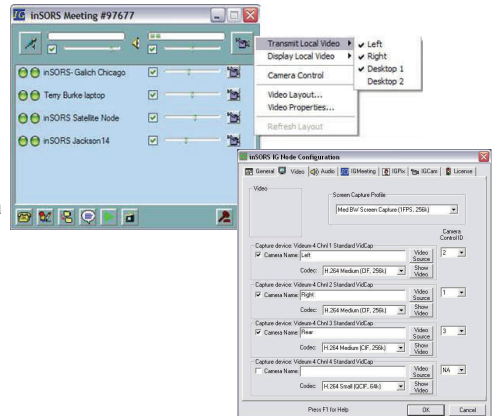
Not able to see remote video views.

1. Make sure you are receiving the remote video streams. If the camera icon next to remote sites is orange, there are video views available from that site that you are not receiving. Click the camera icon and select the video views you wish to receive.
2. Your video views may be hidden behind other windows. Right-click the inSORS Meeting icon on your taskbar (not the blue systray icon) and select Bring Windows to Front.
3. If you do not see all video views you have selected, your video layout may not be set to show all video views you are receiving. Click the camera icon in the inSORS meeting control window, and select Video Layout.
4. Make sure Enable Video Layout is checked and that an appropriate Default Window size is selected for the number of video views you wish to display on your available desktop space.
5. Click and drag in the large white area at the bottom to draw the video window layout area in your desktop and then click OK. Your video windows will appear in the new layout.
6. If you are using a virtual room (under Favorite Rooms) that requires encryption, verify that your node and the other nodes are entering using the same key (case sensitive). First, re-enter your meeting, then click Yes when asked if you have an encryption key.



The other node is not receiving my video.

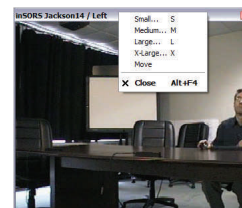
1. Make sure you are transmitting the appropriate video streams. Click the camera icon in the IG Meeting window, hold your mouse over Transmit Local Video, and toggle transmitted video views on or off as needed.
2. If your available video sources do not appear under Transmit Local Video, exit the meeting, and open IG Node Configuration (Start > Programs > inSORS Video Collaboration).
3. Make sure the check boxes next to your video sources are checked and that each camera has a name. Verify the input device by selecting the Video Source button. Click OK and re-enter the meeting by clicking the blue IGMeeting System Tray icon and selecting Join Meeting. Click the Join Last Meeting button to re-enter your meeting. Go to step one to verify that you are transmitting your video source.
4. If you are using a virtual room (under Favorite Rooms) that requires encryption, verify that your node and the other nodes are using the same key (case sensitive). First re-enter your meeting, then click Yes when asked if you have an encryption key.



Video windows are too small.

To change video window sizes, right click the top bar of the window and select a size. (Keyboard shortcuts (S, M, L, and X) may be used when a video window is selected.)

To change the size for all video views, use the Video Layout controls under the Video control menu.



Please contact your local IT support services, or inSORS Support for assistance with troubleshooting.

inSORS Grid Support Contact Information

inSORS Support

+1 (312) 786-9169x3

support@insors.com

<http://www.insors.com/support>

Software and Driver Links

ClearOne Converge 560 Manual

http://www.clearone.com/docs/manuals/800-153-560-Rev1.0_Converge560-590Man.pdf

ClearOne Converge 560 Software

<http://www.winnov.com/legacy/support/software/>

Creative Sound Blaster Live! 24-bit Manual

http://us.creative.com/support/downloads/download2.asp?manualID=8440&Product=10315®ionID=1&Product_Name=Live%21+24%2Dbit

Creative Sound Blaster Live! 24-bit Driver

<http://www.creative.com/language.asp?sDestUrl=/support/downloads>

Winnov 4400 VO Drivers

<http://www.winnov.com/legacy/support/software/index.htm>

inSORS Integrated Communications, Inc.
111 W Jackson, Suite 1412
Chicago, IL 60604
312-786-9169
www.insors.com