

Video Comparison Report 1-9-13

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Purpose:

1. To evaluate the three present video systems from a transcriber's perspective – not to offer a technical evaluation of the software.
2. To offer general observations about the operation of electronic recordings and issues that we've run into while listening to recordings.

Chart of Features:

Features	14A	14B	14C	Magistrates
Vendor	JAVS	JOLOHA	BIS	Joloha Audio Only
Views Displayed on Playback	1	1 4 promised with new install	4	NA
Microphone Style	C Bracket	Mixed	Mixed	Mixed
Jury Box Microphone	No	No	Yes	No
Picture Quality	Standard	Standard	Standard	NA
Sound Quality	Standard	Standard	Standard	Standard
Playback Speed Adjustment	Extra Cost	Included	Included	Included
Foot Pedal Capability	Extra Cost	Included	Included	Included
Proprietary Hardware	Yes	No	No	No
Playback Computer Upgrade Necessary	Yes	?	No	No
Ease of Transcription	Poor	?	Better	Average

Comments on Features:

A. Playback Views Displayed: This is the single most important distinction of the three video recording systems. It's very important for the system to display all 4 camera views at the same time during playback.

The BIS system records 4 camera views simultaneously & displays 4 camera views simultaneously during playback.

The JOLOHA system records 4 camera views simultaneously but only displays 1 camera view at a time on playback on any computer other than the one on the bench in 14B. JOLOHA promises that, if they install more recording systems, then new player software will allow 4 views at a time on the transcribers' computers also. We've not been able to test that because the present system will only play 1 view at a time on a transcriber's computer.

The JAVS system records only 1 camera view at a time and displays only 1 camera view at a time and switches from one camera view to another depending on which microphone is receiving the most input.

It's very important for the transcriber to be able to see all four views concurrently. One camera view at a time makes transcribing much more difficult. Here are three reasons why:

1. If the defendant speaks very quietly or says only one-word answers, the camera view oftentimes doesn't switch to display the view of the defendant but remains displaying the judge. If the question is "How do you plead" and the answer is a very quiet "Guilty" and the camera view does not display the defendant, the transcriber is left guessing who actually said "Guilty," the defendant, the attorney or someone else.
2. If the prosecutor is sitting at the table having a discussion with someone on another case, the camera view will often display the view of the prosecutor instead of the judge or the person who is speaking for the record. During playback of this case, the microphone of the prosecutor can be muted so the transcriber can hear the judge better, but the camera view cannot be changed once recorded. This requires the transcriber to watch the camera view of the prosecutor while trying to transcribe the voice of the judge or another speaker who is now essentially off camera.
3. Elevator noise in Courtroom 14A triggers the recording system to display the view of the witness box even when there is no witness there speaking. Other extraneous courtroom noises or people walking by cause the camera to display views other than the person who is speaking for the record. JAVS tech support tells us that there is a threshold in the software that can be adjusted to require a higher or lower quantity of sound before the camera view will

switch. This adjustment is a two-edged sword. Setting the threshold higher prevents the camera from looking at the empty witness box as often but also produces more frequent instances where the camera fails to look at a defendant who speaks softly. Setting the threshold lower causes the camera view to change more frequently in response to extraneous courtroom noises, making it very distracting to transcribe.

B. Microphone Style: There are three table microphone styles in use. The C Bracket and the Gooseneck style work the best. The Button style is susceptible to being covered by papers or files that are placed on the desk. Papers covering the microphone reduce the sound being picked up and also produce a loud rustling noise on the recording.



C. Mute Switch Function: Some of the microphones are equipped with a Mute Switch. On the back of the microphone shown below, there is a Mute Switch Function Selector with three settings:

1. The “Touch On/Off” setting allows the user to turn the microphone off by pressing the mute button once and turn it back on by pressing the mute button a second time. With the function selector switch in this position, it is easy to forget to turn the microphone back on after off-the-record discussions. This has been a problem with many of the recordings that have been made so far.
2. The “Momentary On” setting allows the user to turn the microphone on by pressing the mute button and holding it down. When the mute button is released, the microphone is again muted.
3. The “Momentary Off” setting allows the user to turn the microphone off by pressing the mute button and holding it down. When the mute button is released, the microphone is on again. This seems to be the most fail-safe mode.

Mute Switch

3-Position Function Selector



D. Jury Microphone: Courtroom 14C has a microphone hanging down from the ceiling over the center of the jury box. We haven't had an opportunity to hear a recording which included jury selection, but it would be impossible to transcribe voir dire without this microphone. With this microphone, the ability to transcribe voir dire will depend on how well it picks up the voices of Juror Nos. 1 and 10 who sit at the far ends of the jury box. The jurors in the middle will be picked up. This microphone picks up audience and noise from the center of the jury box very well during miscellaneous cases, so it needs to be able to be independently muted on playback.

E. Picture / Sound Quality: There doesn't seem to be any difference in the picture or sound qualities among the three systems.

F. Playback Speed Adjustment: This feature gives the transcriber the ability to slow down or speed up the playback speed while transcribing. This is a very helpful feature. On the JAVS system it is an extra-cost item. On the BIS and JOLOHA systems this is included as a standard feature, but the BIS system works better with less distortion.

G. Foot Pedal Capability: This feature gives the transcriber the ability to control the stop, start and rewind functions during playback using a foot pedal. This is a very helpful feature. On the JAVS system it is an extra-cost item. On the BIS and JOLOHA systems this is a standard feature and works with our present foot pedals.

H. Proprietary Hardware: My understanding is that the JAVS recording system can only be run on a computer purchased from JAVS but that the other systems can run on computers from any source. I'm not sure of the details on this point but it seems important to investigate by someone with technical expertise.

I. Playback Computer Upgrade Necessary: The court-owned computer sitting on my desk in Room 913 will not play JAVS files from 14A properly. It is a 2.4 GHz Pentium 4 with 768 MB of RAM running Windows XP Pro, Service Pack 3. JAVS tech support says that that computer is not fast enough to play back their video files. JOLOHA tech support says that this computer may not be fast enough to play their video files. This computer however does play the BIS files properly. I expect that this same issue will exist with all of the court reporters' court-owned desktop computers.

All the JAVS and JOLOHA files played in order to do this evaluation were played on one of our privately-owned laptops which are a 1.66 GHz Intel Atom with 1.00 GB of RAM running Windows 7 Starter, Service Pack 1.

Operational Issues Observed:

A. Scanner: It's important to scan every court file before the case is handled and make sure that the correct court file is being scanned. Scanning the barcode on the court file starts a new electronic file for each case and names that file with the case number. If the scanner is not used, then all the cases handled that day are all bunched together into one electronic file named with the date, and the transcriber must listen to the whole day's recording until the case that is to be transcribed is found.

There have been a few problem scenarios that we have observed with scanner use.

Scenario 1. Case A is scanned.
Case A is handled.
Case A is scanned again. (by mistake)
Case B is handled.

The result of this scenario is that the recording of Case B will be saved under Case A's case number followed by "-1." To find this case and transcribe it, the transcriber has to listen to the first few minutes of the recording of every case handled that day to discover which case number it was recorded under.

Scenario 2: Case A is scanned.
Case A is handled.
Case B is either not scanned or the scanner did not read it properly.
Case B is handled.

The result of this scenario is that the recording for Case B will be on the end of the recording of Case A, both under Case A's case number. To find this case and transcribe it, the transcriber has to listen all the way through every case recorded that day.

In the 2nd half of 2012, there were three occasions where a transcript was ordered and either Scenario 1 or Scenario 2 existed. On two of those occasions, we were able to find the recording and transcribe it. One of those was an appeal. On the third of those occasions we were not able to find the recording at all.

B. Operation and Monitoring of Recording Process: To make a good record, someone will need to be responsible for operating the recorder, making sure it actually is recording well, and making sure the resulting recordings are findable. We've had trouble finding recordings. It seems like it would be a good practice to have the person who is making the recordings also have some experience finding and listening to them later.

Each of the systems has the ability to enter notes into the electronic file to indicate where in the recording certain events occur. (witnesses, direct, cross, exhibits, etc.) This will be an important part of the recording process if the hearing being recorded is long. Finding a certain event in a long recording is tremendously time consuming without these inserted notes. It seems like these notes will have to be made by a person who is paying close attention to the hearing.

C. Speakers Standing At Microphones: In order to make a usable record, participants must stand at the microphones while speaking. Oftentimes prisoners will be taken to the middle of the courtroom or attorneys will speak from the inner side of the parties' tables with their backs to the microphones or prosecuting witnesses will speak from the audience. Sometimes these speakers are on camera but unable to be completely understood. Sometimes they are actually off camera.

D. Speaker Identification: All speakers must identify themselves for the record. In some recordings we've made so far, the only way we've been able to identify speakers is by recognizing their faces on the video or by recognizing their voices on audio-only recordings.

If two speakers have similar voices, even if they do identify themselves at the beginning of a hearing that is being audio recorded without video, the speakers' identities can become unclear later in the hearing.

E. Concurrent Speakers: Speakers must not be allowed to speak on top of each other. During playback, if the speakers are on different microphone channels, the transcriber can alternately mute the channels to understand most of what each speaker is saying, but doing so is extremely difficult and time consuming. If both speakers happen to be on the same microphone (which happens when parties stand at the bench and speak) it's almost impossible to separate the voices into a usable transcript.

F. Actions Recorded: Participants should realize that their actions are being recorded as well as their words. Recently we ran across an occasion where a prosecutor gave a "thumbs up" gesture right after the judge announced a sentence. Our presumption was that the gesture had to do with a different matter, but the timing was unfortunate.

G. Ease of Transcription: This is a purely subjective measurement. The BIS system seems to have an advantage in how intuitive it is to understand and use. After a couple months of use, any system will become familiar, but the BIS system seems to be the easier one for me to work with from the beginning.

Inaudibles:

With any electronic recording system, there will be inaudible or unintelligible portions of the record. That has been true of the recordings we've made so far. There are a few things that we would need to do to reduce the number of inaudibles as much as possible:

- place equipment carefully (and regularly make sure microphones are not muted, etc.)
- monitor the recording process (not just turn it on and assume it's recording well)
- train operators/monitors
- design a standardized method of storage and backup of files.
- control the courtroom environment
(where speakers stand, volume & location of extraneous conversations, identification of speakers, etc.)

Conclusion:

After listening to and transcribing the electronic recordings we've made since this evaluation process started, it is my honest judgment that the record made with any of these systems will be less complete than that to which we have been accustomed. The main factor is that, with the machine, there is no person present in the courtroom whose exclusive responsibility it is to continually focus on whether a complete record is being made, and the machine doesn't know that something was unclear until it's too late.

However, of the three systems we have evaluated, the BIS system is clearly the most functional and the easiest to transcribe from.

Respectfully Submitted,
Tim Alexander
1-9-13