

Courtroom Record Work Group of the Standards Subcommittee of the Supreme Court of
Ohio Advisory Committee on Technology and the Courts

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Foreword

One of the most critical aspects of the judicial process is the requirement that a verbatim record be created for virtually all judicial activities. This “record” had been created and kept using three primary methods until just a few years ago. The earliest records of judicial proceedings were recorded by pen and ink. This usually involved a scribe quickly writing briefs of court proceedings during or immediately after court. Different forms of shorthand writing were implemented in the nineteenth century. Machine stenography was invented in the early part of the twentieth century and remains a popular method used by the courts. Personal computer and word processing had a major impact on transcript preparation. Subsequent inventions of computer aided transcription quickly moved machine stenography to a higher technology based process. The invention of sound recording machines in the form of tape recorders spawned the use of these devices to create an analog recording of court testimony and proceedings. Analog recordings are now moving to digital recordings that can effectively and efficiently provide sound and video records of judicial proceedings. Ohio experimented with video technology to create a trial record many years ago. While that failed due to technology limitations, it did show that it was possible to make an accurate record with video technology. Another method involves an operator repeating every word being said into a mask. Voice recognition software converts the spoken word to type for further use.

A secondary aspect to the creation of verbatim record, either by stenotype or electronic recording, is the reduction of the stenotype notes or electronic recordings to a paper or transcript format. Modern technology has been embedded in this part of the process since the invention of the typewriter and subsequently the word processor.

The process of making a record of court proceedings has primarily been left to local courts. Generally, the courts have set transcript rates and, in some cases, defined a basic transcript format. There are some statutes and court rules that address limited aspects of the process. For the most part, the recording process has evolved from a manual pencil and paper based system to higher technology systems without comprehensive standards.

Many courts have implemented electronic record systems for filings, pleadings, payment and public access. Standards for the record making process will help move towards a full electronic case record available to counsel, parties, and the public.

Scope

These standards are intended to assist courts in choosing technology in compliance with Sup.R. 11(a), and:

1. Guide courts through their transitions to new systems, while not requiring immediate replacement of equipment or processes that are currently in place.
2. Assist local courts in making informed choices when determining the method to deploy, create and manage verbatim recording of judicial proceedings.

3. Facilitate the integration of transcripts and recordings into an integrated docket of proceedings.
4. Prepare a foundation, in conjunction with other technology standards, for the development of pleadings, briefs, and decisions that use hyperlinks to reference source documents or citations.
5. Facilitate the exchange of records and information among different courts and governmental agencies.

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Introduction

Superintendence Rule 27 requires the Advisory Committee on Technology and the Courts to “promulgate and publish regulations governing the use of information technology in the courts of Ohio, including but not limited to. . . minimum, uniform standards relating to the creation, distribution, filing, and storage of, and access to electronic documents.”

Current technology allows a court to create a digital record of court proceedings. That record must be stored in a manner consistent with records management standards and be made available for duplication, distribution, or other use by a court or the public. The same record reduced to a paper transcript must be similarly available for duplication, distribution or other use by a court or the public. The source or notes made by a stenographer must be maintained along with other technology tools used to prepare a transcript or record. Records and recordings are subject to all of the efficiencies and convenience that any other electronic document may afford.

Acknowledgements

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www.supremecourtohio.gov.

Policy Standards

1. If a court is planning to upgrade their existing recording equipment and processes, any of the following methods may be employed:

Stenograph machine method.

Stenograph machine utilizing computer aided transcription.

Digital audio recording

Digital video and audio recording

Steno mask or voice mask and voice recognition technology.

2. Courts shall prepare and adopt a “*Management Plan for Records of Judicial Proceedings*” that will include but not be limited to the following:

A description of the technology and method used to record judicial proceedings.

A statement that all paper transcripts must conform to the requirements of App.R.9(B).

Additional detail for transcript format that includes but is not limited to:

Lines per page

Line spacing

Font size

Margin size

Format for Q and A, colloquy, testimony, or other speaking that is part of the record.

Current rates approved by the court for the reproduction of electronic records and transcripts.

A description of how a party or the public can obtain a transcript or copy of a recording.

Names of any agencies or individuals that are approved by the court to prepare transcripts from recordings. The court should have a standard process by which any qualified agency or individual can obtain approval to prepare transcripts from recordings.

A procedure to limit access to recordings of sealed and confidential matters.

Rules or procedures pertinent to the process.

Commentary: [Ohio App. Rule 9](#) does define a format for appellate transcripts. However, the definition is very limited and allows for a great deal of variation in a final product. Many courts have created rules/guidelines for transcripts designed to address areas that are not defined in [Ohio App. Rule 9](#). As an example, [Ohio App. Rule 9](#) does not address such things as

- Number of lines per page
- Type size
- Margin size
- Q and A formats
- Colloquy formats
- Line spacing

It has been the experience of some that an absence of such details may lead to abuse and overcharging for transcript preparation.

3. Video electronic recording systems should be capable of creating a recording that includes courtroom presentations, depositions, and evidence presented to the court through electronic presentation methods.

4. Courts may make recordings or transcripts available for purchase or distribution through an internet connection if the court provides public access through that method.

5. Formats employed for digital video or audio recordings shall be accessible through a common, freely available player.

6. In addition to any other requirements, depositions filed with the court or submitted at trial should be in a format that will allow electronic storage. The court or party should be able to view the depositions electronically in a manner similar to other court records that may be stored electronically.

7. Systems should be redundant in creation and storage of records.

Functional Standards

1.00 Content

What is in the Record?

1.01 General Definition:

Court recording systems should be designed to capture a record of all proceedings in a verbatim manner. The contents of the record of proceedings generally include, but are not limited to, the following:

1. Voir dire examination of prospective jurors

2. Opening and closing statements of counsel
3. Testimony of all witnesses
4. Side-bar discussion held among the court and counsel
5. Comments made and asked to be stricken
6. Comments made and afterwards asked to be off the record
7. Comments made when an off-the-record discussion is requested but not agreed to by the court
8. Any video or audio played in open court (in the format in which it was played, VHS, CD, DVD, or format required by the court)
9. Depositions read in open court (certified transcript of depositions in printed or format, digital text attached)

1.02 Contents of Record

A court may adopt a local rule to clarify the method(s) to be employed to include or exclude, as appropriate, off-the-record discussions,” sidebar discussions, any video or audio played in court, depositions read in court, and redaction of sensitive items not constituting public records.

2.00 Creation

How do you make the Record?

2.01 System Architecture and Design

2.01.01 Court recording systems shall have dedicated hardware for the recording system. This may include, but is not limited to, workstations, servers, disk/tape drives, etc.

Commentary: This standard is not intended to preclude courts from utilizing workstations or server hardware for other uses. It is intended to ensure that the recording system can function reliably, unimpeded by other demands on the hardware. To the extent that other applications do not interfere with the recording system, additional use would not conflict with this standard.

2.01.02 Court recording systems shall have open architecture that allows integration and expansion as well as offer compatibility with standard peripherals and industry standard interfaces.

2.01.03 Court recording systems shall provide integrated confidence monitoring.

2.01.04 Court recording systems shall offer file format compatibility with industry standards.

2.01.05 Court recordings systems should utilize peripheral devices for transcription (e.g. foot pedals, headphones, etc.) that connect to the system via standard interfaces.

2.01.06 Court recording systems shall ensure all future versions are backwards compatible with the existing system.

2.02 Capturing the Record

2.02.01 The system shall have the ability to accurately capture all oral proceedings within the courtroom and preserve them for subsequent use.

2.02.02 Sound Processing – The system shall have the basic function of converting the analog signal received from the microphones into a digital signal.

2.02.03 The recording mechanism shall be situated in the courtroom so as to maximize its ability to be exposed to and record the proceedings without unduly interfering with them.

2.02.04 Quality Recording – The system must have the ability to record on multiple channels determined by room size, number of microphones, type of proceedings and other engineering requirements.

2.02.05 “Live” channel indicators – The system shall have a feature that visually displays information that informs the court recorder that recording is or is not working properly on the different channels.

2.02.06 Audio “pause” indicator – A system must periodically produce an audible alarm when the system has been put in “pause” or “mute” mode, such as during a bench conference, to alert the operator to resume normal operation when the conference has ended.

Commentary: We are aware that some systems do provide a visual indicator, and while this is a welcome supplement to audio indicators, an audio indicator should still be in place.

2.02.07 Annotations – The recording system shall include an interface that allows the user to create an index of the event being recorded, for use in identifying a desired portion of the hearing. The recording system shall provide a search function to allow searching of a recording’s annotations.

2.02.08 Microphones must be low profile and have a range adequate to effectively capture courtroom procedures.

2.02.09 Microphones – Mute buttons with a toggle switch shall not be used.

2.02.10 Microphones that visually indicate when they are on and off are recommended

2.02.11 Multi-channel recording – The system shall have the capability to keep the audio signals received from different microphones separate.

2.02.12 Confidence Monitoring – The system shall have a mechanism to ensure that the audio signal has accurately been recorded mechanically or electronically.

2.02.13 Captured Playback - The system shall allow for playback of the recording while simultaneously recording the events in the courtroom.

2.02.14 Integration – The system must allow the files to be read by non-proprietary software utilities that are freely available at little or no cost.

2.02.15 Storage mechanisms – There shall be an operating system to ensure a fully redundant, fail-safe mechanism for the court recording and archiving. The system must be capable of reproducing the audio signal in an open, publicly available (non-proprietary) digital format. A system must create a backup of the audio files for disaster recovery and must archive the permanent copy of the digital recording on a widely-available, industry-accepted medium which can be stored separately from the system. The court shall also retain the necessary software for playback of the recordings.

2.03 Annotation

2.03.01 Security – Potentially sealed and confidential matters shall be noted by annotation.

2.03.02 The system shall be capable of inputting and maintaining a case log in conjunction with the digital recording with numeric time indexing indicating all critical junctures of the proceeding.

2.03.03 The system shall allow for the ability to import case information from a case management system for annotation purposes.

2.03.04 The system shall allow for a search of the recording via multiple parameters.

2.03.05 A log must be maintained for all proceedings.

2.03.05.01 The log should include those items that are necessary to allow for a review to easily locate particular events or activities in a record.

2.03.05.02 The log should be keyed to time and date or have another logical method of locating and reviewing any part of the record.

2.03.05.03 A combined log for many court proceedings may be employed but a user must be able to locate individual cases.

2.04 Functional Standard: Subsequent Use of the Record

2.04.01 The system has the ability to allow for the re-creation of the record at a sufficient quality level to enable the preparation of a complete, true and correct transcript.

2.04.02 The system has the ability to be read or played back into audio using non-proprietary software utilities that are freely available at little or no cost.

2.04.03 The playback and transcription capabilities of the system include:

2.04.03.01 Playback of all audio sources independently

2.04.03.02 Playback of all audio sources simultaneously

2.04.03.03 Independent volume control of each audio source

2.04.03.04 A search function which allows searching of the index of the captured record

2.04.03.05 A mechanism to allow the captured record to be cued to the desired portion

2.04.03.06 Playback of the captured record at different speeds for the purpose of more accurately discerning the details of the record

2.04.04 The system has the ability to clip portions of the captured record to accommodate requests for parts of the record.

2.04.05 The system has the ability to reproduce the captured record on standard media with no licensing restriction for playback, including no licensing restrictions on playback software.

2.04.06 The system has the ability to save the captured record in industry standard formats such as AVI, MPG, WAV or MP3 format playable by non-proprietary readers.

2.05 Functional Standard: Preservation of the Integrity of the Record

2.05.01 The system shall have the ability to preserve the integrity of the captured record through appropriate system configuration or storage media, whether on fixed disk or removable media.

2.05.02 The system shall have the ability to provide a captured record that cannot be tampered with after it has been established in the system.

2.05.03 The system shall employ “record over” protection in its archive and redundancy functions.

2.05.04 The system shall provide for fail-safe operation and maximum uptime.

2.05.04.02 Electrical backup devices that allow the system to function for a period of time to allow system shutdown must be present.

2.05.05 The system shall have security to control access.

2.06 Functional Standard: Integration with Case Management and/or Evidence Presentation Systems

2.06.01 In order for the court to plan for the future and allow integration with other information and systems, recording systems must provide a mechanism to exchange data with any case management or evidence presentation systems in use at the court, in a readily available format. This will ultimately allow recordings to be accessed through these other systems.

Commentary: At the time of the writing of these standards, the accepted standard for system interaction is ODBC. However, the intent of the standards is to allow systems to utilize current technologies for interaction and compatibility between systems.

3.00 Preservation, Integrity and Dissemination

How do you preserve and share the Record?

3.01 Functional Standard: Release of Recordings

3.01.01 The court shall make copies of recordings of courtroom proceedings available for release where appropriate.

3.01.02 Original recordings of courtroom proceedings shall remain in the control and possession of the court.

3.02 Functional Standard: Electronically Captured Exhibits

3.02.01 Any exhibits captured electronically during the court proceeding shall be included when any request for a record of that proceeding is fulfilled.

3.03 Functional Standard: Redaction

3.03.01 Systems must be able to redact any portion of the record which is required to be redacted due to privacy or other reasons before the record is disseminated to parties who are not authorized to view this information.

Commentary: *Slagle v. Rogers*- Supreme Court currently says that audio recordings are public record. This case does not address redaction issues at all.

3.04 Functional Standard: Certification of the Record

3.04.01 Each court shall define who is responsible for maintaining the recorded proceedings.

3.04.02 There shall be a process for authenticating that a copy of the record is true, correct and accurate.

3.04.03 If redactions are made on any copy of the record, the system must utilize a mechanism for identifying those redactions.

Commentary: At the time of drafting this standard, no system provided the functionality described in 3.04.03 in an automated fashion. However, it is anticipated that vendors may create such a mechanism in the future.

3.04.04 The original electronic record in its full unredacted form shall be maintained.

3.04.05 The original recording system must employ a mechanism to prevent or detect alteration of the original recording.

Commentary: It is anticipated that if an audio or video recording is provided as the record then the designated person from the court would include some statement of certification that this is a true and correct copy.

We suggest that the system log place identifying information on each copy provided along with some method of authenticating that copy. For example, including a checksum or other electronic signature on that copy which will allow quick authentication.

3.05 Functional Standard: Dissemination of the Record

3.05.01 Dissemination of the record shall utilize a method to ensure that the record received by the recipient is identical to the record that was originally transmitted by the sender.

Commentary: Possible means of meeting this requirement include including an electronic checksum which can be verified from the original location – preferably in an automated fashion – i.e., checksums could be placed on a web site or other electronic index

3.05.02 Any medium used for dissemination of a court record must be provided in a readily available format that utilizes a playback process that is widely available at no cost to the recipient of the record.

Commentary: If proprietary software is required for playback of a recording medium, that playback software should be provided at no cost.

3.05.03 *Attachment Support* – The system must be able to articulate all captured content such as audio, video, annotations and machine understandable data (metadata) as a single digital record.

3.06 Functional Standard: Public Record Requests

3.06.01 The court shall be aware of current public records laws and ensure that their system will allow them to be in compliance with requirements for making courtroom records available.

4.00 Management Plan

4.01 Functional Standard: Business Continuity

4.01.01 The management plan addressed in the Policy Standards of this document shall include a plan for the capture of the record in the event of the failure of the primary recording device.

4.01.02 The primary recording device should have the capability to store at least one year of recordings.

4.02 Functional Standard: Storage and Backup

4.02.01 The recording system shall enable compression of digital records.

4.02.02 Backup shall be performed on a regular basis.

4.02.03 When possible, an additional backup copy should be made for offsite storage.

4.02.03.01 If a court reporter is maintaining stenographic notes in a digital format, both the original notes and a plain language translation should be backed up to a system controlled by the court.

4.02.04 Simultaneous storage to multiple devices is highly recommended. For example, recording to the local PC in the courtroom and simultaneously storing to a remote server.

4.02.05 Originals and copies of recordings shall be clearly labeled.

4.03 Functional Standard: Archiving and Storage of the Courtroom Record

4.03.01 Courtroom recordings shall be transferred regularly to a central location for archiving.

4.03.02 A standard file-naming format shall be established for digital audio recordings to ensure the court system's ability to accurately identify, retrieve and use those records for the duration of their retention period.

4.04 Functional Standard: Retention.

4.04.01 Retention of recordings shall be in compliance with retention schedules established by the appropriate authority.

4.05 Functional Standard: Expungements

4.05.01 The system shall employ a method to exclude expunged and/or sealed records from access by unauthorized personnel.

Glossary

Annotation - The system shall be capable of inputting and maintaining a case log in conjunction with the digital recording with numeric time indexing indicating all critical junctures of the proceeding.

Audio “pause” indicator – A feature on the recording device that periodically produces an audible alarm when the system has been put in “pause” or “mute” mode, such as during a bench conference, to alert the operator to resume normal operation when the conference has ended.

Attachment Support – A feature on the recording device that provides the ability to articulate all content associated with the captured event including audio, video, annotations and machine understandable data (metadata) as a single digital record.

Captured Playback – A feature on the recording device that allows for playback of the recording while simultaneously recording the events in the courtroom.

Confidence Monitoring – A feature on the recording device that provides the ability to ensure that the audio signal has accurately been recorded mechanically or electronically.

Integration – The system must allow the files to be read by non-proprietary software utilities that are freely available at little or no cost.

“Live” channel indicators – A feature on the recording device that visually displays information that the recording is or is not working properly on the different channels.

Multi-channel recording – A feature on the recording device that allows for the capability to keep the audio signals received from different microphones separate.

Open Database Connectivity (ODBC) - provides a standard software API method for using database management systems (DBMS). The designers of ODBC aimed to make it independent of programming languages, database systems, and operating systems.

Primary Recording Device -The analog or digital device recording device in use in a particular courtroom or location.

The Record- The contents of the record of proceedings generally include, but are not limited to, the following:

1. Voir dire examination of prospective jurors
2. Opening and closing statements of counsel
3. Testimony of all witnesses
4. Side-bar discussion held among the court and counsel
5. Comments made and asked to be stricken

6. Comments made and afterwards asked to be off the record
7. Comments made when an off-the-record discussion is requested but not agreed to by the court
8. Any video or audio played in open court (in the format in which it was played, VHS, CD, DVD, or format required by the court)
9. Depositions read in open court (certified transcript of depositions in printed or format, digital text attached)

Redaction – The ability to able to mask or remove any portion of the record which is required to be redacted due to privacy or other reasons before the record is disseminated to parties who are not authorized to view this information.

Sound Processing – The process by which the recording system converts the analog signal received from the microphones into a digital signal.

Storage mechanisms – There shall be an operating system to ensure a fully redundant, fail-safe mechanism for the court recording and archiving. The system must store the converted audio signal in an open, publicly available (non-proprietary) digital format. A system must create a backup of the audio files for disaster recovery and must archive the permanent copy of the digital recording on a widely-available, industry-accepted medium which can be stored separately from the system. The court shall also retain the necessary software for playback of the recordings, which shall be stored with the recordings.

Appendix: Model Management Plan

It is recommended that each court adopt a management plan to define and describe the process and procedures employed by the court in making a record of proceedings. Plans such as this have been effectively implemented in regard to court security and jury management. The purpose of a plan is to clearly demonstrate:

- How court records are made.
- How to obtain copies of recordings or transcripts.
- How the equipment works and any requirements or procedures that a user needs to know to effectively use the systems employed.

The following outline is a suggested framework for an individual or multi-judge court. Additional items may be required depending on the needs of the local courts.

I. DESIGNATION OF RECORDING METHOD

A. *Ohio Sup. R. 11 Proceedings before any court and discovery proceedings may be recorded by stenographic means, phonogramic means, photographic means, audio electronic recording devices, or video recording systems. The administrative judge may order the use of any method of recording authorized by this rule.*

1. In compliance with this rule, the Administrative Judge, should memorialize the methods of recording in each courtroom. The plan should include a brief description of the technology employed. As an example:
 - a) *“Proceedings in Courtroom 1 shall be recorded using the Acme Digital Audio Recording systems.”*

B. Tell how the system works.

1. As an example:
 - a) *Courtroom 1 utilizes a digital recording system to record all proceedings. Microphones are strategically placed in the courtroom for recording.*
 - b) *Microphone placement*
 - c) *Camera placement*
 - d) *Recording media*
 - e) *Courtroom playback*
 - f) *Courtroom presentation equipment*
2. Any specific desires of the Court should be included here as well. As an example:
 - a) *If the court requires that a defendant and attorney stand at a podium for any part of the proceedings (such as a plea or sentence), it should be defined.*
 - b) *Approaching witnesses*
 - c) *Procedures for going on and off the record*

d) *Formats for presentations*

II. DESCRIBE THE TYPE OF MEDIA USED TO RECORD THE PROCEEDINGS

- A. Ex. Digital audio recordings of court proceedings are recorded on a computer hard drive, stenograph, or other analog system.
- B. Include any other information that would help parties understand how the system operates.
- C. Provide information regarding how to play back or listen

III. STORAGE AND ACCESSING RECORDINGS AND MEDIA

- A. As an example:
 - 1. *All original and backup copies of recording should be kept in a safe and controlled manner. If original or copies are kept in the court building, security measures should be employed so that original media cannot be tampered with or damaged. This includes court stenographer notes, indexes, or any other record that is kept in regard to a courtroom proceeding.*
- B. Determine who has access to original or copied recordings.

IV. COPIES OF RECORDINGS

- A. Describe how copies of recordings can be obtained.
- B. Describe how to obtain a transcript of proceedings.
- C. This section should also include information on costs for recordings, transcripts, or other products that may derive from a courtroom recording system.
 - 1. Cost of duplicated copies of electronic media.
 - 2. Transcript rates set by the court under ORC Ann. 2301.24
- D. If the court places any limitations on the use of recordings, transcripts, or similar products, those limits should be described.

Appendix: Integration of Recordings with a Case Management System

In an ideal world computer based court information systems would serve as a single point to reference every element necessary to review and manage a case and caseload of a court. Case management systems are primarily based on a docket or list of actions, activities, filings, and case status'. These systems have changed and improved over the years to include more capability for integration with document management and scheduling systems. Many clerks of court now post electronic images of filings and other case related information on the internet for public viewing. These systems are not generally integrated and a user must navigate from a case management system to a separate document management system to view a document image. Additional layers are added when access must be made to a scheduling system or probation client management to get a full view of the case. Technology standards for Ohio generally require ODBC compliance¹. Adherence to this standard will facilitate integration of recordings, documents, and other external information sources with a primary case management system. If a court has a strategic interest in having a single integrated case management system, standards must be maintained when procuring any computer based technology to ensure the ability of that technology to integrate with other systems. Standards may change from time to time, ODBC compliance is merely an example of the desired level of integration.

The technology for recording by electronic means or machine stenography is continuing to be improved and enhanced in many ways. The need to integrate recordings with a case management system will become more important as courts move into electronic filing and integrated information systems. The cost of developing a completely new and integrated system would be prohibitive. However, if courts adhere to basic standards many integration problems will be avoided.

Courts should think strategically when procuring any technology that is related to case management, recording, or document imaging. Following some basic standards will help with future integration.

Examples:

- ✓ Many case management systems have an integrated function that allows a user to view a docket entry and then click an icon to see the original source document.
- ✓ If the source document is in an ODBC format, the user may cut and paste portions of the document to place in another document.
- ✓ Scheduling and other case management functions can be generated when forms or entries are prepared.

Similar capabilities can extend to court recordings from machine stenography or digital audio and video.

- ✓ A docket entry could contain an icon that would direct the user to an original or copy of the recording.
 - This would avoid having to track down an individual court employee that was responsible for storing the recording.
- ✓ Original stenograph notes, transcripts, and electronic recordings could be stored electronically and be accessed through the case management system.
- ✓ Depositions and transcripts could be filed in an electronic format.
 - Access could be limited in accordance with law and rule.
 - A video transcript or deposition could be electronically accessed from the courtroom or judicial chambers for review.

The task of making the recordings attach to a docket entry would most likely need to be accomplished by the vendors of the case management system and the recording system. This could be very difficult and costly if the basic standards of system integration are missing. However, if the Standard 2.6 is considered, the linkages can be simplified.