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## Courtroom 21: A Model Courtroom of the 21st Century

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# Court Technology

B U L L E T I N

National Center for State Courts

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## Courtroom 21: A Model Courtroom of the 21st Century

Fredric I. Lederer

On September 13, 1993, the College of William & Mary and the National Center for State Courts (NCSC) unveiled Courtroom 21, the most technologically advanced courtroom in the United States. Courtroom 21 is located in the McGlothlin Courtroom of the

College of William and Mary and is affiliated with the Court Technology Laboratory of the NCSC.

Courtroom 21 demonstrates how technology can enrich the legal process by assisting judges, counsel, jurors, court reporters, and other court staff. Courtroom 21 is a national demonstration site for visiting judges and court administrators and an instructional facility for law students that not only illustrates courtroom technology, but also permits the National Center and William & Mary to determine the results and implications of that technology.

Courtroom 21 uses only commercially available, reasonably priced technology. It is a work-in-progress that will be upgraded over time with technological innovations. Courtroom 21 contains technology products from Stenograph Corporation (in conjunction with Court Technologies, Inc. and Discovery Products, formerly Stenograph Legal Services), Mead Data Central (LEXIS and Folio), Shure Microphone, Doar, and Dell Computer. We expect to add new products from new firms as they become available.

Courtroom 21 includes the following integrated capabilities:

**Automatic video recording of proceedings using ceiling-mounted cameras with voice-initiated switching.** Courtroom 21 has five ceiling television cameras in the courtroom and one ceiling camera in the cellblock. The multiframe television system by Court Technologies, Inc. displays the camera pictures in small video windows (frames) that surround a much larger principal window. When someone in the courtroom speaks, the Shure microphone closest to that person "gates on," alerting the system's microchip control-

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ler that speech has taken place. The controller then copies the picture from the camera associated with that microphone into the large window. With cameras properly aimed, the entire courtroom and corresponding cellblock (when necessary) are visible via the small video windows; the person speaking is visible through the large video window. The control system uses sophisticated adjustable logic to ensure that the camera view doesn't shift unnecessarily (e.g., when counsel only coughs) and to determine which picture should be displayed when more than one person speaks.

**Real-time or recorded televised evidence display with analog optical disk storage.** Via the Doar Presenter and Video Disk Partner, counsel may present documentary or real evidence to judge and jury via television display. To display evidence throughout the courtroom, counsel need simply place evidence, including charts and graphs, on the surface under the Presenter's vertically mounted camera lens. The Disk Partner permits evidence to be prerecorded on small analog disks for later use at trial. It also permits trial evidence and events to be preserved on disk, either for later trial use or for the appellate record. In addition, the disk system captures video images from a variety of sources, including videotape. In conjunction with the disk storage system, the Presenter's camera can preserve still television pictures of courtroom events, including witnesses' testimony.

**Remote, two-way television arraignment.** Courtroom 21 allows for video arraignment between the bench and a remote site through Court Technology, Inc.'s

video products. Audio and video signals are received by the control center and then sent to the several courtroom computer monitors, including the jury box, if required.

**Text, graphics, and TV-capable jury computers.** Because today's world increasingly uses television and computer graphics, including animation, Courtroom 21's jury box contains computers for information display. Each television-capable super VGA monitor can display documents, real evidence, live or prerecorded video, real-time transcription, and the usual graphics (i.e., charts, diagrams, and pictures). Because jurors should not be distracted by unnecessary computer displays, the monitors are used only when necessary to display jury information. Although the jury computers are fully functional, there are no current plans to use them other than as display devices.

**LEXIS legal research at bench and counsel tables.** Courtroom 21 provides judges and counsel immediate access to legal resources through LEXIS, an on-line legal database by Mead Data Central. LEXIS contains an extensive variety of state and federal statutes, case law, and other precedent. If an unanticipated legal question arises during trial, judges and counsel can use the bench and counsel table computers to consult the LEXIS database. Once located, legal resources can be reviewed on courtroom monitors to help resolve the legal question at hand.

**Built-in video deposition playback facilities.** Because more depositions are being video recorded by attorneys in preparation for trial, Courtroom 21 has capabilities for video deposition playback.

To impeach a witness or present expert witness testimony, video depositions can be played on court monitors. When synchronized with the DiscoveryVideo<sup>2X</sup> software and a specialized VCR, portions of videotape can be located and played automatically, without significant trial delay.

**Information storage and presentation via Folio Views.** Folio Views Plus for Windows is installed in Courtroom 21 to provide text-searching database capabilities to the participants. The Folio family of products are now owned by Mead Data Central, the home of the LEXIS legal database. As a result, Folio now easily imports downloaded LEXIS files to present legal case information in an easy-to-read, Windows-type style. Text from word processors can also be imported (read) to create a text database for judge and attorney.

Text databases allow one to search for words or combinations of words in documents and transcripts to find the required information. Most judges and attorneys are familiar with either Westlaw or LEXIS. Folio Views provides similar text-searching capabilities on the user's computer. However, once the documents have been imported by Folio Views, the user can also use the computer equivalent of the yellow highlighting pen and "sticky notes" to mark text and create notes. More advanced users can create logical hypertext links between sections of documents.

**Concurrent (real-time) court reporter transcription, including the ability for each lawyer to mark an individual computerized copy for later use.** Stenograph Corporation has provided a complete computer-inte-

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## **Courtroom 21, *continued***

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grated courtroom (CIC) in Courtroom 21. A court reporter uses the self-contained Stentura computerized writing machine for real-time capture of testimony in the courtroom. When a court reporter writes, the computer within the Stentura translates strokes into English. The Stentura is connected via a cable to a host personal computer in the control room, which distributes the transcript to the judge and counsel, who receive the trial testimony on their personal computers. Upon receipt, the text can be viewed and "marked" for later review.

Hearing-impaired witnesses and jurors can greatly benefit from this technology since they can read along with the testimony in the courtroom simultaneously with the actual proceedings. And, the judge and attorneys can take a copy of the day's testimony with them on their laptop computer or on a floppy diskette for review and trial preparation.

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For more information about Courtroom 21 and the technology described in this article, contact Professor Fred Lederer, of the College of William & Mary (804) 221-3792.

The second part of this article, which will examine the implications of the technology as it is used in practice, will appear in the next issue of the *Bulletin*. ▲