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THE ELECTRONIC COURTROOM AND THE PAPERLESS TRIAL

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I – INTRODUCTION

Santa Claus, the Easter Bunny and the tooth fairy do not really exist. Neither does the "paperless trial." Like the sentiment captured by our childhood icons, the idea of a paperless trial provides a sense of excitement and a goal toward which we might strive. However, it is no more real than Charlie Brown's Great Pumpkin. At least not in this generation.[1] Paper remains a necessary tool of persuasion. We are simply conditioned and trained to believe what we can touch, what we can hold – not merely what we can see.[2] Electronic images are "real" only for the moment they are projected. The instant they are replaced by another image, they cease to be. Paper is tangible – and thus, perceived to be more reliable.[3]

The examination of witnesses and summations of the evidence, both at opening statement and closing argument continue to be based on documents – contracts, contemporaneous project records, construction drawings and submissions, letters, and, more recently, e-mails. Even when presented electronically, the source documents are required to be available and made part of the record. Pleading and motion practice, pre-trial memoranda, deposition and trial transcripts, witness and exhibit lists, jury instructions, post-trial proposed findings, indeed, the entire "record" of the case is still paper.[4] There is no paperless courtroom. This is not necessarily a bad thing – a paperless courtroom, even if attainable, would not, ipso facto, improve the delivery of justice by enhancing the reliability of the result, shortening the ordeal or lessening its cost (other

than the savings in storage cost, which is certainly not the controlling cost in legal proceedings).

That said, it is clear that an electronic court is a decidedly good thing. It is also becoming more and more common. It is a wonderful new tool that allows the participants in a dispute resolution proceeding to consider and understand evidence and argument efficiently. Basic concepts fundamental to a particular dispute can be presented in a manner allowing rapid education and then combined and built upon so that the fact finder can ultimately make a meaningful decision pertaining to complex, sophisticated concepts. The litigants, familiar with concepts through experience in their industry, acting in accordance with customs and practices, need to educate a fact finder who does not start out with the familiarity that is necessary for an informed ruling.[5] Electronically presented evidence allows for an accelerated education of the fact finder.

Complicated construction issues, requiring analysis of contract drawings, shop drawings, site conditions and corrective measures, can be presented in a manner to maximize comprehension in a minimum of time. Thus, a trial, properly presented with the aid of electronics, enhances the reliability of justice by insuring a more informed fact finder (leading to more reliable results). Teaching and learning is simply easier electronically. Electronics shorten the ordeal by streamlining the handling of documents and more quickly focusing all participants' attention on a particular point in a document and thus allowing for a more productive use of time. It also lessens the cost of the process because a shorter trial is a cheaper trial. The incremental added cost of presenting evidence electronically is quickly dwarfed by the time related cost of the lawyers and consultants and the lost opportunity cost of the parties and witnesses.

So, just what is an electronic courtroom and how does one plan and present a case electronically? Stay tuned, for that is the subject of this paper.[6]

II – WHAT IS AN "ELECTRONIC COURTROOM"

An electronic courtroom[7] is simply one that allows for the presentation and observation of evidence and testimony through the use of projected images of documents, rather than simply paper documents. More and more modern courtrooms are designed and equipped to facilitate presentation and consideration of evidence by electronic means. These courtrooms, containing adequate and appropriate lighting, layout, electrical outlets and the multi-media presentation equipment so familiar to the rising generation, are truly electronic. The electronic courtroom makes presentation of the tangible evidence more efficient, but does not yet replace the physical document itself.[8]

While the prevalence of paper persists, electronics certainly provides a medium through which delay attributable to locating and focusing on a particular document can be minimized. Through searchable databases, virtual documents can be located quickly and presented for all involved to see, without the need for each participant, lawyer, witness, judge and jury to fumble for the right volume of exhibits, correct page and particular paragraph. Through a few clicks of a mouse, the exhibit, indeed the particular paragraph of a letter or portion of a drawing can be projected on monitors throughout the courtroom, for all to see.

III – ANTICIPATING AN ELECTRONIC PRESENTATION

Presenting an electronic trial requires planning from the beginning of the case. One cannot decide, the morning of jury selection, or the first day of arbitration, to present the case electronically. Planning for an electronic presentation must start when the case

is accepted. Discovery, document organization, witness and exhibit preparation and pre-trial exchanges all must be coordinated with the electronic presentation in mind.

Electronic presentation is expensive. Therefore, it is not recommended in all cases. In cases where the amount in dispute is sufficient to justify the expense of the presentation, the author utilizes a trial team approach. For appropriate cases, a fully staffed trial team is comprised of lead counsel (who, in our model, handles all witness examination) an appellate attorney (who is responsible for all writing and legal argument), an outside consultant (our fellow panelist, Francisco [Paco] Farach) and his team (who is responsible for initial document review and identification and explanation of the technical construction aspects particular to the dispute at hand), and a *trial*[9] paralegal (who is responsible as a "clerk of the works" for all documents, exhibit lists, hard copy and electronic exhibits and the actual operation of the electronic equipment).

Since portions of the electronic trial will consist of projecting exhibits during examination which may require flexibility, software such as Trial Director, which allows for retrieval through either an identifying number or scanning of a bar code that is affixed to a hard copy of the document, must be obtained and installed on all hardware that might be called upon at trial. One must spend time becoming facile with the presentation tools for highlighting, zooming and emphasis in order to be able to work on the fly, bringing to the attention of the fact finder, the portion of a document being discussed, in a timely, but unobtrusive manner.

Some exhibits, common in the trial of a construction dispute are not susceptible to electronic projection. Oversized plans and tangible evidence (building components) must be addressed differently. There are portable cameras that can be linked to the projector,

to facilitate projection of objects that cannot be scanned (so-called "eye-balls"). Oversized plans can be present, with small portions scanned and then projected, once the source is identified.

Additionally, portions of the presentation can be prepared anticipating only minimal interruption. Opening statement and closing argument can be more scripted than a particular witness examination, with less deviation from plan. Therefore, software such as Powerpoint can be used, ahead of time, to prepare that portion of the presentation. It is important to plan for the various types of presentation likely to be used at the trial so that the operators of the equipment can be familiar with the software capabilities and utilize them to enhance the trial attorney's presentation.

IV – DISCOVERY AND DOCUMENT ORGANIZATION WITH ELECTRONIC PRESENTATION IN MIND

The electronic presentation of a construction dispute ideally is the culmination of careful planning so that a consecutively numbered single set of joint exhibits can be presented by all parties during examination of witnesses and the presentation of opening and closing argument. This ideal can be obtained only when each party can identify the exhibits it anticipates using, far enough in advance to allow for a meeting the purpose of which is to identify documents appearing in both parties' lists, in order to assign only one number to each document.[10] Where this meeting does not occur, or where the meeting is not successful, each party will have its own set of exhibits to present.

Of course, the meeting to prepare the joint set of exhibits cannot occur until each side has figured out what documents it intends to utilize as exhibits, in the first place. With a view toward ultimately presenting the case electronically, the trial team ought

undertake discovery and document indexing, from the day the case is accepted, in a manner that will facilitate the presentation.

Even though documents will be presented electronically, hard copies of the exhibits will need to be furnished to the fact finder and available to the witness. They are also sometimes helpful for quick reference while the available computers are occupied with current and preview[11] projections.

From the very beginning of the case, witness interviews and documents reviews ought be conducted in a manner to identify the knowledge the witness has or the contribution the document makes to a particular issue in the dispute, similar to any other type of presentation. A matrix, in spreadsheet format, allows for a facile handling of the information, as it becomes voluminous.[12] The matrix can be sorted chronologically, by type of document, by author, recipient, issue, bate stamp or key word.[13] The matrix is continually updated, as more information is gathered and issues are refined. As the case progresses and documents are scanned and burned to CD or DVD, the identifying numbers can be inserted into the matrix, as well.

The matrix is used to prepare for depositions. By sorting, documents on which a particular witness should be questioned can easily be identified. As depositions proceed, the matrix includes the deposition exhibit number provided to the document, the first time it is identified.[14] Throughout the deposition and discovery phase, the pre-trial exhibit list is thus constructed. All exhibits attached to the Complaint and Answer and all exhibits identified through depositions can be assigned the unique sequential numbering in the final pre-trial exhibit list. Documents that were not identified during depositions and, thus not assigned an exhibit number can be added at the end.

Today, digital deposition transcripts are readily available. Even better than the "mini-scripts" that for a while, made traveling with deposition transcripts more convenient, electronic transcripts are portable and become potent weapons at trial. Being searchable, deposition testimony that contradicts a witness' live testimony at trial can be quickly located and projected during cross-examination of the deponent. If the deposition was videotaped, with a proper mapping, the portion of the video where the witness is actually seen saying something contradictory to trial testimony, can be played, with obviously devastating effect. In order to accomplish this with a minimum of disruption, proper deposition summaries are required. The summaries ought list not only page and line where important testimony is found, but video frame numbers for ready reference.

Keep in mind that the documents will need to be converted to digital through scanning in order to project them during trial. The vast majority of the documents, organized by exhibit number, can be scanned at one time, burned to a disc and loaded into the projecting computer. However, it is often worthwhile to have a portable scanner available during document productions "in enemy territory." When an important document is found, it can be scanned immediately, without waiting for copy services or worrying it will get lost in the mix. These scanners are small and virtually silent – providing an effective weapon in the arsenal of electronic discovery.

Once the documents are discovered, organized, identified, scanned and catalogued, please, please, please, make a back-up disc (or three). Do not depend on one computer, or one disc, given the fickle and fragile nature of technology. Redundancy, while inexpensive in this context, may well prove priceless.

V – USE OF ELECTRONICS IN MEDIATION

Electronic presentations, effective at trial, are even more effective in pre-trial mediation. Mediation presents a perfect opportunity to present the best part of your case in a scripted, well packaged presentation. Powerpoint, setting forth your client's view of the issues, the evidence bearing on the issues and the likely outcome, used in mediation, may well obviate the need for trial. Since the presentation is not bound by rules of evidence and can take liberties not otherwise available at trial, it can combine hard evidence and comment on hard evidence to great advantage. "Shock and awe" – presenting your case in its best light to your opponent's principal, in the presence of a neutral arbitrator, may open your opponent's eyes on several levels. Most importantly, your opponent may actually recognize the validity of your client's position, when presented in a manner similar to that which will be viewed by a neutral fact finder. It may reveal the vulnerability of your opponent's own position. It may provoke a reaction or comment from the mediator, which causes your opponent to re-evaluate. At the very least, it may strike fear in your opponent as to the level of preparation and quality of presentation it will have to face at trial – especially if its own presentation at mediation pales by comparison.

VI – PREPARING FOR THE ELECTRONIC TRIAL

As trial approaches, and the issues become more focused, key exhibits can be identified and the order of witnesses and content of their testimony can be determined. At this point, an Order of Proof can be prepared. The Order of Proof is an outline (updated continually after each day of trial) which sets forth each witness to be called, in the order anticipated, with an outline of areas of inquiry, annotated to include specific

exhibits at the point of questioning when they will be discussed (and projected).[15] The Order of Proof should include cues not only for deposition exhibits (letters, contracts, plans, etc.), but for illustrations, charts, summaries and any other information to be projected. This script is used by the team, to make sure the electronic presentation is coordinated. The Order of Proof includes the electronic identification of documents to be projected (including the page and portion, if any, to be highlighted).[16]

Scripting cross-examination is more difficult, since it is not precisely knowable what testimony will be elicited on direct examination. Nevertheless, in most cases, there are areas of inquiry that the practitioner will certainly explore on cross-examination. Preparation of the outline (in the Order of Proof) and exhibits for electronic presentation, for these areas would follow the path of the more predictable direct examination.

For experts, presentation of their opinions can be supported by Powerpoint to illustrate the points being made with supporting documents imbedded within the presentation or Trial Director can be used to project the supporting documents independently.

Finally, there is still a place for the old fashioned oversized poster boards. Timelines, schedules and enlargements of photographs are presented well on over-sized boards and may not translate well to reduced size when presented electronically. However, fragnets of schedules or timelines can be powerfully presented electronically, with documents supporting critical entries embedded within. In this manner, testifying witnesses, discussing a particular date, can tie their testimony to key documents, without the need for fumbling or mis-stepping. Picture, if you would, zooming in, from the

larger, less detailed view, toward the more focused, narrower view – without losing context. That is our goal and the purpose behind our selection of presentation technique.

VII – PRESENTATION – "IT'S SHOW-TIME!"

Having discovered the case in a manner which allowed the collection, organization and scanning of documents in anticipation of an electronic presentation, one must now utilize the tools effectively, but unobtrusively. The first step toward the electronic trial is getting the electronics into the courtroom. This is not automatic and requires advance planning. Post 9/11, security concerns must be considered in anticipating an electronic presentation. Particularly in a federal courtroom, arrangements to bring electronics, including computers, projectors, scanners and monitors, must be made ahead of time with the United States Marshalls. Often, a written order, specifying the particular equipment (down to cell phones and the brand of laptop) authorized to enter must be obtained from the Court before the equipment will ever see the courtroom.

Well in advance of trial, the team ought to survey the courtroom for layout of counsel tables, witness stand, judge's box, jury box, sight lines, available electrical outlets and natural and artificial lighting (and the ability to control it). One should consider how the courtroom will be arranged to maximize visibility for the participants and yet allow for traffic flow around the courtroom well. Consideration must also be given to whether your adversary will also be making use of electronics and, if so, arrange for sharing of projecting hardware, monitors and projection screens. Once the optimal layout and sharing requirements are determined, equipment selection and placement can be finalized.[17]

It is also strongly suggested, if the Court permits, to set up fully the day before trial is to begin. This allows for a dry run of all equipment, a check of sound and lighting conditions, sight lines and other details that can only be addressed in a dress rehearsal of "game-time conditions." Even assuming everything runs smoothly in the rehearsal and you have back ups of everything, you should still have a "plan B" – just in case everything falls apart, be ready with hard documents.

Once trial begins and all is functioning smoothly, the electronic courtroom merely compliments presentation. Projected images of the project under scrutiny, components of the building are brought into focus, and witness examination can proceed without delay incumbent on "keeping everyone on the same page." By projecting the "page" everyone is automatically on the same page. "Drilling down" to a point, from fundamental definitions to complicated structural engineering issues becomes interactive and less intimidating. Thus, strategic placement of monitors (and screens, where appropriate) is important. The judge, clerk, witness box, opposing counsel and your team all should have monitors. Switch boxes allow your adversary to "capture" the monitors for their use during their examinations.

VI – ANTICIPATING YOUR ADVERSARY'S ELECTRONIC PRESENTATION

Thusfar, our discussion has centered on our electronic presentation. How will your adversary cross examine witnesses you present who use the electronics? As with hard copy documents, you should exchange copies of CDs and DVDs containing the exhibits and summaries on which you intend to rely. While it is not of so much concern what your opponent does with the media you provide to her, you should be sure to take time to study what your adversary had provided to you.

Analyze what is provided. Do not wait to see the slides projected live for a short time during trial, hoping to catch key points for cross examination in the short time until the next image is projected. Anticipate which portions will be used with your adversary's witnesses on direct examination so that your team can cue up and use on cross examination portions of the same presentation. Cross examining the adverse electronic presentation is perhaps the most challenging portion of a trial. Preparation is essential.

VII – EVIDENTIARY CONCERNS AND APPLICATION TO PARTICULAR FACT FINDERS

Projected exhibits raise the same evidentiary concerns as raised by the documents themselves. There is no inherent evidentiary issue created by the electronic projection of a document. Of course, authenticity may be challenged if there is inappropriate highlighting or emphasis added or if the document projected is altered from the original. Documents that are in the nature of summaries, must meet the requirements for admission of summaries generally. Source data supporting the summaries must be made available and may be ordered produced in court.[18] As some states require advance notice of a party's intention to use a summary,[19] the better practice would be to provide the summary in advance, with notice of intent to use it and an offer to make the underlying source documents available.

One must also keep in mind, for courtroom layout and presentation detail and pace, whether the fact finder is a jury, judge or panel of arbitrators from within the industry. With a jury, greater use of definitional slides, larger or more plentiful monitors and a slower pace of presentation may be required. Indeed, more "teaching" at an oversized screen may be appropriate from witnesses and counsel, both.

VIII – CONCLUSION

The recent advances of electronics, allowing for more powerful, more portable computing, provides an exciting opportunity for the trial lawyer to present complicated cases in a succinct, interesting and interactive fashion. In areas such as construction, where the subject matter is complex and requires teaching the fact finder fundamentals of often unfamiliar concepts, the technology provides an efficiency that works to make the fact finding more reliable and, through the resulting efficiency in time management, more economical. While the paperless courtroom is yet an unrealized aspiration, the electronic courtroom is here, ready to facilitate the delivery of justice.

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[1]Perhaps in the not too distant future, dispute resolution participants, who will have been raised on electronic communication and adapted their sensory receptors, will accept the information as readily as we accept the same information presented physically. At that time, perhaps entire disputes will be presented in DVD format, without paper support.

[2] Recall, for example, the resistance you encountered within yourself when first asked to convert your research methods from pouring over piles of musty smelling tomes to Boolean searches of bytes.

[3]This blanket statement, like many others in this paper, is utterly unsupported by citation to authority or empirical data. It is the entirely subjective opinion of the author, distilled from the experience of having tried and arbitrated a few cases over the last few years. Please, then, give it only the weight you determine it deserves.

[4] See, e.g. FRAP 10.

[5] Whether the dispute is being resolved by a jury, judge or panel of arbitrators, electronically presented evidence allows for a more effective education. This paper will discuss differences in the presentation dictated by the nature of the physical set up and the fact finder, but the benefits of electronic presentation apply across the spectrum of dispute resolution.

[6] The subject matter of this presentation does not lend itself to a scholarly paper. Rather, we present a discussion of our experience in the courtroom use of technological developments which simplify the presentation of complex concepts of a construction related dispute to fact finders. The goal of such electronic presentation is to make the fact finding process less intimidating.

[7] We use the term "courtroom" throughout this paper. A conference room, hosting arbitration, is equally susceptible of the lessons offered.

[8] While the human mind is becoming conditioned, through television, computers and other electronic media to recall and reflect upon electronic images in its decision making process, formal dispute resolution still seems rooted in the reinforcement of impressions through tangible evidence. The impact of the possibility of inserting subliminal suggestion into electronic presentations used for dispute resolution may be significant, albeit paranoid, but is entirely beyond the scope of this paper.

[9] Again reflecting the author's personal experience, there is a difference between litigation (which he views as the drudgery leading to trial) and trial (viewed as the resolution of the dispute). A true trial paralegal, like a trial lawyer, will understand what matters to the fact finder and therefore what battles must be fought and which might be

avoided, understands the pressures and demands on the team and the intense nature of the endeavor.

[10] While a single set of consecutively numbered joint exhibits avoids assigning the same document two different exhibit numbers, the goal proves elusive. The last minute nature of trial preparation never seems to allow for an orderly reconciliation of the various parties' exhibits in sufficient time to accomplish this laudable goal. The remainder of this paper will presume that the experience of the author is similar to that of the reader and therefore, surrenders the idea of a single set of joint exhibits in favor of the far more likely separate sets for each party.

[11] It is often helpful to have a second computer visible to the examining attorney as a preview of the next exhibit or Powerpoint slide in a presentation.

[12] An exemplar of such a matrix is included with this paper, as Attachment 1.

[13] There are expensive and well known software programs for this (such as Concordance or Summation). The undersigned's team has found that a simple Excel spreadsheet, customized for the types of information being input, works just fine.

[14] Using only one number for a document, no matter how many times it is discussed at different depositions helps avoid confusion. Agreeing with counsel, at the outset of depositions, to consecutively mark exhibits, so that there is only one "exhibit 1", no matter how many depositions, is also a simple, yet confusion reducing suggestion. Since clear identification of documents ultimately being projected is important to a clear record, give a document a unique identifying number is important.

[15] An excerpt from an Order of Proof used by the author is included with this paper as Attachment 2.

[16] Since the Order of Proof is an outline, especially during direct examination of one's own witnesses, a conversational examination will frequently result in departure from the strict order. This presents a challenge to the paralegal to be able to follow the examination and adjust to changes in the order of documents to project.

[17]A sample layout of a courtroom, demonstrating the placement of equipment for a non-jury trial is included with this paper as Attachment 3.

[18] FRE 1006.

[19] See, e.g. Florida Rule of Evidence 90.956.

ATTACHMENT 1
THE MATRIX

Exh#	Date	From	To	Profile	Bates S#	Bates F#	R
265	05/26/04	Joe / GC	Sam / Sub	Letter requesting visit to jobsite to observe problems with quality and production. Numerous failed inspections. You are not getting real information from your site personnel.	HCF-00517		R
299	06/10/04	Sam / Sub	Joe / GC	Letter re: Notice of Default for Nonpayment. April Application and Certificate for Payment #4 in amount of $256,957.69 - check has been cut but is being held.	HCF-00074	HCF-00077	
303	06/15/04	Steve / GC	Joe / Sub	Letter re: GC conducted jobsite review - found Suib had total of 3 masons and 5 laborers on job - project is grossly understaffed, affecting the schedule. View action by Sub as abandonment of the project.	HCF-00067		R
327	06/29/04	Steve / GC	Joe / Sub	Letter re: Enclosing revised breakdown of GC's damages incurred as a result of Sub's slow and poor performance. Costs continue each day, will look to Sub and Surety for payment.	HCF-00185	HCF-00186	
329	07/02/04	Steve / GC	Mike / Sub	Letter re: Response to 6/29/04 letter - it is obvious you have no possible knowledge of the actual dealings on jobsite - he has not been on site or had proper supervision or adequate manpower to make such statements.	HCF-00192		R

ATTACHMENT 2
ORDER OF PROOF

Superintendent (Plaintiff witness)

a. Witness to Defendant 3/8/04 - EXHIBIT 117 - (117001) HCF00813 with color photos (also HCF24839)

1. nature of problems addressed
2. point out sills laid out from opposite directions
3. consider and comment on Defendant's response 3/22/04 – EXHIBIT 133 - (133001) HC00805

ii. PLAY WITNESS POWERPOINT – PART II

1. SLIDE 2 – first threshold inspection
    a. everything covered up – could not be inspected
2. SLIDE 6 – failed inspection again on 3rd and 4th floors
    a. prevents follow on window work
3. SLIDE 7 -- identify red checks and numbers (Inspector's markings) and black numbers (column numbers)
4. SLIDE 17 – Defendant called for this inspection – it was not a surprise
    a. now inspecting what had been covered up
5. SLIDE 22 – inspector in photo
    a. not photographed before inspection

iii. PLAY WITNESS POWERPOINT – PART III

ATTACHMENT 3
COURTROOM LAYOUT