TECHNOLOGY ESSENTIALS FOR LAWYERS
THE 2004 TECHNOLOGY GUIDE

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CHAPTER 1.1

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The 2004 Law Office Tech Guide
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I.   INTRODUCTION

Oliver Wendell Holmes wrote that, "Man's mind, once stretched by a new idea, never regains its original dimension."[1]   The same principle applies to technology's impact on business and the practice of law. The use of new technology including cellular & wireless devices, the Web, e-mail, databases, word processing, and multimedia has had a tremendous impact on the practice of law and we will never practice law the same way we did before this technology.

Unfortunately for attorneys that are refusing to use new technology and/or are afraid of using new technology, the rapid development of law office technology will continue to alter the way we practice law through e-filing, the Web, e-mail, wireless devices, databases, networks, and computer forensics. As such, remember that Technology is not the enemy or anything to be feared, in fact it is an opportunity to improve the way we do business and practice law.

Remember: *As the practice of law continues to implement new technology, the successful attorney will learn to efficiently use the technology to improve his or her practice and not be bound by less efficient traditional methods of practicing law.*

This paper discusses law office technology (computers, software, networks, phones & fax machines, cell phones & wireless devices, and the Internet) that I use in my practice in handling complex toxic tort & fire litigation in Austin, Texas. In handling residential and apartment fires as well as toxic mold & other toxic tort claims, it is common to have cases with several parties & attorneys, hundreds of photos, thousands of documents, and hours of video. If you multiply this information by several cases (between 25-40) and add law office management duties, volunteer work, bar activities, keeping up with the law, and marketing, the amount of information that I have to manage can be overwhelming. Thank goodness for technology to keep it all somewhat organized.

II.   THE COMPUTER (PCS AND LAPTOPS)

The rise of computers in businesses and homes is one of the major technical advances of our time. In fact, we are living in the digital era where computers are used in most businesses and have penetrated into most homes. Computers have had a great impact on the practice of law in that almost every law firm has at least one computer. In fact, most attorneys have multiple computers in their practice with at least basic word processing, accounting, case management, and Internet capabilities. If you do not have a computer in your law firm, I would recommend getting at least one.

In purchasing a new computer most computers are very similar. Basic models are upgraded about every 18 to 24 months and a good mid range computer with some bells and whistles is around $2000.00. I bought my last three computers from Dell ($2500.00), Sams ($1,800.00), and Costco ($999.99). I also found that Best Buy and Office Depot are good places to purchase computers and laptops. Like any other large purchase, I'd recommend making a list of your basic computer needs & wants, check Consumer Report, speak with other computer owners, and compare at least three different places prior to purchase. Doing this could save you a couple of hundred dollars on the purchase price and help ensure that you purchase the computer does the applications that you want for your practice.

A.   The Personal Computer (PC)

The microcomputer better known as the "personal computer or (PC)" is a computer created for a single user and has a Central Processing Unit (CPU) that consists of a single integrated unit known as a microprocessor. Since 1981 when IBM and Apple launched the first mass produced and marketed microcomputers called Personal Computers (PCs), the PC industry has exploded onto the world making the PC the dominant business computer in the world. Attorneys and the practice of law are no different. Most attorneys in small law firms use some type of PC in their office. Some of the most common uses of PCs include word processing, accounting, time and billing, legal research, forms, faxes, calendars, Internet services, case management, and other data base programs.

B.   Laptops

An extremely popular type of PC for business and many law firms is the laptop which is a small portable computer that usually comes with an alternative source of power such as a battery so it can be used remotely. Laptops are extremely popular because of their

mobility. Though early versions of the laptop often lacked the power of their desk top brethren, over the last several years laptops have gotten more powerful with better graphic capabilities, lighter, and less expensive.

With the rise of Local Area Networks (LAN discussed more fully below) in offices, law schools, airports, coffee shops, and other public locations, a wireless card in your laptop is becoming essential. The wireless card allows the lap top user to connect into a LAN and use network resources including Internet capabilities. As LANs continue to become more common, laptops will become more useful and more common.

C.   The Tablet PC

The next generation of the laptop is the Tablet PC. It is similar to a laptop, but it allows the user to write and draw on the screen then converts the writing to text and the drawing to electronic format. The Tablet PC is currently around $2400.00 about twice the cost of a laptop, but for the attorney that hates typing and likes using a pen, this may be a good option.

III.   HARDWARE, SOFTWARE, & BASIC COMPUTER FUNCTIONS

The computer and all equipment attached to it are called *hardware*. The instructions that tell it what to do are called *software*. The computer's basic functions are to *input data, process data, and output data.* The computer inputs data by retrieving data into its main memory from an input device connected to it, process the data through it software, and then output the data to a peripheral device.

A.   Input Devices (*Hardware*)

Common input devices for the computer include the keyboard, mouse, scanners, disk & tape drives (hard, floppy CDs, DVDs), fax machines, wireless device, network devices, and other computers. In the future telephones, cell phones, televisions, thermostats, stereos, vehicles, and several other products that can hold small computer chips will be potential input devices.

1.   The Telephone & Cell Phones

The telephone is essential to a law office. In fact, most law firms have multiple phone lines per attorney. The complexity of telephone systems range from a simple single line for one attorney to complicated switch boards and routers with caller id, voice mail, call transferring, call forwarding, call waiting, conference calling, intercoms, music for persons on hold, and touch tone menus to multiple attorneys & support staff.

Unfortunately, telephone integration with computers is not easy and many firms are struggling to

implement it including my own. In an informal survey of law firms, I was not able to find one firm that has been able to integrate their telephones with their computers. However, I like several other Texas law firms are on the edge of technology break through and will soon integrate our telephone and cell lines with our computer network.

The goal is to have the phone line input data into a computer allowing the computer to identify the caller through caller id and match the telephone number to a database. If the person has called before, the computer will pull up past call information and case information if applicable. If the person has not called and it is a new number, I'd like it to be automatically added to my central database. If anyone is able to do this please e-mail me at jason@texaslawyers.com, I'd love to know what phone system, computer, and software you are using.

Cell phones like traditional phones are essential to law firms and have not been effectively integrated into law office computers. They, however, add the convenience of remote communication and are essential for the lawyer on the go. Some of the more advanced cell phones have Internet capabilities as well as calendar & other palm device features. The current problem with these devices is the speed of connection. The slow download speeds of Cellular Wide Area Networks greatly limit Internet communications to extremely small data transmissions. However, there are rumors that technology has solved this problem and in the next few years our cell phone/palm device will become increasingly advanced with e-mail & Web features.

Remember: *With almost every cell phone comes a hands free device. Though it takes a little getting used to, I recommend learning to use it. It makes driving much easier and safer. It also may help avoid placing high frequency EMFs from the phone from being in close proximity to your brain for long periods of time.*

2.   The Fax Machine

The fax machine is almost as essential as a telephone for the practice of law. Most law firms have one or more fax machines. Though a relatively new form of technology, the fax machine's days of glory may be over as e-mail does almost everything a facsimile does plus a whole lot more.

Oddly enough, while the telephone has not been integrated with the computer, the fax machine has been integrated with computer through fax software. These fax programs work well and keep a log of all faxes sent and received. However, the stand alone fax has some advantages including automatic hard copies of confirmation pages to place in files, ability to send hard copies of outgoing faxes without a scanner, and not slowing up your computer when receiving or

sending a fax. As such, I use my dedicated stand alone fax machine to receive faxes and send non electronic faxes, while I use my computer fax to send documents that I have created on my computer.

3.   E-mail

    Electronic mail has become increasingly common in our lives with some of us receiving hundreds or thousands of e-mail messages a day. From List Serve Communications to Business & Client communications, e-mail if used correctly can greatly enhance your practice efficiency and ability to collect information. For my law office the biggest benefit of e-mail is that it provides research & marketing capabilities through profession association list serves. A list serve is an Internet community where one person can post a message to a group by sending an e-mail to a specified address which is sent to all members of the group. Some attorney list serves that I am in have over a thousand attorneys on them.

    E-mail is also an effective communication tool with clients and attorneys as I can respond to questions at my convenience and do not have to wait until all parties are able to talk on the telephone. ***The key to electronic mail is to always remember that you are creating a record of what you are saying. Be careful what you write.***

4.   Web

    The World Wide Web is truly the Information Superhighway and acts as a great equalizer between small and large firms. Research that once took hours at the library now take minutes to find on the Web. Whether you are looking up directions or researching specific types of toxic mold, there is an amazing amount of information available out there.

    In addition to the general knowledge out there the legal research companies are now online. The powerhouse of legal research is ***West's Publishing*** follow by Lexis-Nexis. Since the invention of head notes and the decision to grant West's exclusive use of it, West's has dominated the legal research industry. As such, West's is the most expensive provider of computerized legal products, but has the best product. ***Lexis-Nexis*** is overall pretty much the same as West's, but lacks the head notes as well as West's recently developed Key Cites. The advantage of Lexis is that it is less expensive and at the time I used it on a regular basis in law school, it had more databases. However, before spending money on the big two make sure that your needs exceed what is free from mytexasbar.com, the State of Texas, and the different governmental entities.

5.   Palm Devices

    From the early simple handheld address book & electronic calendar to the modern small computer/telephones, Palm Devices with wireless or docking technology can be a useful tool for collecting information remotely. However, I purchased a Palm device and never really used it. I never got used to the interface the stylus typing or alphabet. I also had trouble with docking it to my computer and integrating it to my database. I'm currently looking for a good palm device that will integrate with Access, TimeMatters, and Outlook databases/calendars. I want to use it mainly to exchange contact information.

6.   Multimedia

    From video and audio recordings to photographs and documents, integrating evidence & documents into electronic format for litigation, trial, and mediation has become a valuable tool to connect with adjusters, other attorneys, judges, and juries. The cost of the technology to create multimedia presentations has come down quite a bit. As such, if you are so inclined, it is a good time to buy a computer with multimedia editing capabilities. If you can learn how to use it or hire someone to assist you, it can greatly enhance your ability to present your client's claims.

7.   Scanners

    Scanners are relatively cheap and a good addition to any law office. Unfortunately, scanning technology known as Optical Character Recognition (OCR) is still not extremely accurate and when scanning a document someone usually has to edit conversion problems including formatting and erroneous characters. The advantages of having a scanner are that you can scan images and photos as well as avoid some retyping of documents.

B.   Software Applications and Processing Data

    As stated above the instructions that tell a computer what to do are called its ***software***. A set of instructions that perform a particular task is called a program.

1.   Operating Systems

    An Operating System is the master control program that runs the computer. It is the first program loaded and it resides in memory at all times. It is an important component of the computer system, because it sets the standards for the application programs that run in it. All programs must communicate with the operating system.

    One of the first operating systems was the disk operating system or DOS. According to computer lore, Bill Gates bought DOS for $50,000.00 and then used it as a shell or platform for his Windows 3.1, Windows 95, Windows 98, Windows 2000, Windows XP, and Windows NT operating systems. Currently, most offices have moved beyond DOS and use one of

Microsoft's Window's operating systems to manage their computer's resources.

2.   Word Processors

The most common type of software in the practice of law is the word processor which is used for document preparation. Though there may be a few firms that still use typewriters, word processors are used in over ninety five percent of law offices. The most common types of word processing software are Word Perfect and Microsoft Word. Years ago the systems were not compatible and it was almost easier to retype a document rather than convert the document from one to the other. Further, a user had to be almost entirely retrained when moving from one program to another.   However, after several years of fierce competition between the Microsoft and Corel over the word processing market, current versions of the programs (MSWord and Wordperfect) are very similar and format conversions though not perfect are much easier.

3.   Database Management Software and Case Managers

A Database Management System allows a law firm to manage and search a vast amount information. Popular legal database managers are PCLaw Jr., Amicus, Timeslips, Quicken, Quickbooks, and Time Matters.   I have personally tried most of these managers and have found Time Matters and Access to be the best for my practice. In addition to the name brand database managers, some law firms hire programmers to set up proprietary database managers to suit their individual needs. If your firm decides to do this, then make sure you know what you are getting and that the vendor will be around in the future if there are problems.

4.   Spreadsheets and other Accounting Software

An electronic spreadsheet simulates a paper spreadsheet, or worksheet, in which columns of numbers are summed for budgets and plans. It appears on screen as a matrix of rows and columns. Spreadsheets can have thousands of cells and can be scrolled horizontally and vertically in order to view them.   As odd as it may seem, the electronic spreadsheet was not created until 1978. Prior to the introduction of the electronic spreadsheet, changing one number or calculation in a large spreadshee was an accountant's nightmare and could cause numerous changes in bookkeeping records. Currently, Quicken, Excel, and Quattro Pro dominate the legal spreadsheet and accounting market. I am in the process of learning Quickbooks Pro and have been using a simple Excel Spreadsheet that I created.

5.   Browsers & E-mail (the Internet)

A browser is a software application that allows a user to browse the World Wide Web. Netscape and Microsoft dominate the Browser market with their products that are for the most part freeware and are available on the Internet or via Internet Service Providers such as AOL, Earthlink, or SBC. In addition to allowing you to browse the Web, browsers have companion e-mail programs that allow you to send and receive e-mail. Microsoft's e-mail program is called Outlook. The advantage of Outlook over Netscape is that it will integrate better with other Microsoft applications including MS-Word and Access.   The disadvantage of using Outlook as your e-mail program is that because of its popularity or its infamy, it is often a target for viruses and worms.

6.   Presentation Software/Multimedia Applications

Presentation software such as Microsoft's Power Point and Sanction allow the user to combine different forms of media including text, image, video, and sound files into one presentation. This software is popular with trial attorneys as well as presenters and is how most of the presenters will be presenting their papers today.

7.   Voice Recognition Software

Some types of voice recognition software have allegedly been developed to a level of almost perfect accuracy. For the most accurate software, make sure that you get the most current version of the software, have a high powered computer with plenty of RAM (working memory), a good microphone, a good sound card, and be sure to speak clearly. You will also need some time to train your computer to recognize your voice and for you to learn the software. Associated hardware includes a microphone and a sound card. Currently, Dragon is suppose to be the best voice recognition software, but I would encourage anyone buying voice recognition software to visit TechWeb's software review section.

C.   Output and Storage of Data

Monitors, printers, phones, faxes, wireless devices, disk drives, and other computers are all common outputs for computers.

D.   Printers

Printers, copiers, and fax machines are a god send when they work and extremely frustrating. In using printers for almost 20 years and for the past almost 10 years in my practice, I have found that it is best to have at least one heavy duty Hewlett Packard laser printer for large documents and a secondary Hewlett Packard Deskjet with the ability to print in color. The deskjets are not good for high volume printing because they are slower and have a smaller ink cartridge.

E. Monitors

Monitors have getting bigger and been coming down in price. I selecting monitors, I purchased 17 or 19 inch LCD flat screen monitors and would recommend getting the largest screen that you have room for and can afford. The flat screens are nice because they take up less room, are lighter, and don't create the electrical magnetic fields that regular monitors do. They, however, are a bit more expensive.

1. Backup & Storage

Make sure to back up your computer on a somewhat regular basis including after important changes in data and before any computer upgrades or invasive maintenance. Typically, it is only necessary to back up data and other documents, not programs. Several forms of backup devices exist, I use an external DVD burner that I purchased at Costco for about $120.00.

2. Video and Audio Accessories

Video and Audio cards plug into a computer's motherboard and allow a computer to input and output data from and onto audio or video devices. Through the video card or display adapter, the computer is able to send information onto a monitor for the user to view. In selecting your video card it is important to determine if you are going to want to work with large graphics.

An audio card also plugs into the motherboard and allows the computer to input and output sound. As voice recognition software and radio through the Internet are becoming more common, I'd suggest splurging on a good audio card. Additionally, if you are purchasing the computer for your home I'd suggest a video card that includes a voice/fax modem.

IV. NETWORKS AND THE INTERNET

Networks are now the buzz in the computer world and in law office technology. A network is a set of computers connected together for the purpose of exchanging information. It is easy to create a network either wireless or hard. If you do create a wireless network or connect your law office network to the Internet, please make sure to use encryption and firewalls to protect your data.

Networks are currently classified by their size. A local area network (LAN) is a small communications network that serves users within a small confined geographical area. Most small to mid range law offices have local area networks (LANs), while some extremely large firms may have wide area networks (WANs). Wide Area Networks (WAN) are much larger networks that expand through large geographical areas. These networks can actually connect law offices all over the world with allowing these offices to share information including large databases and libraries.

The advantage of a private WAN over the Internet (actually a WAN itself), is that it allows security of sensitive data. If you are interested in finding out more about WANs and the practice of law, ask a friend at Fullbright and Jaworski or another large firm.

V. CONCLUSION

This paper and the companion presentation were designed to provide a ***basic overview of information technology*** for the law office including basic hardware & software commonly used in the practice of law.

Like it or not a basic knowledge of law office technology is essential to effectively practice law because we are in the midst of the Information Age. Since the 1960s information technology and computer utilization have advanced at an exponential rate changing the way lawyers and other information workers do business. From typewriters to PCs, carbon paper to copiers, registered mail to e-mail, and shorthand dictation to voice recognition software, the evolution of information technology and the development of the modern business computer have greatly impacted the practice of law and will continue into the foreseeable future.

If you have any comments for me concerning this paper, please feel free to contact me by e-mail ([jason@texaslawyers.com)](jason@texaslawyers.com).

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