

# **A SURVEY OF 2005 LAW OFFICE TECHNOLOGY**

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As a long-standing member of the Bar's Technology Committee, and a lawyer interested in the implementation and application of technology in the practice of law, I am frequently asked about the best software and hardware for use in a law firm setting. Recently, a young lawyer opening his first office visited mine to learn what technology was available for lawyers, how it could be efficiently implemented, what worked and what did not, and to gain some sense of priority of implementation. Our conversation caused me to take inventory of all the technology that I now utilize, most of which was implemented long ago and which I now take for granted, and place some degree of priority, or cost-benefit ratio, upon it. The following paper is a summary of that self assessment, and will seek to break down the various categories of software and hardware that the author believes should be utilized in every law firm, and will seek to give you, at least some subjective view, as to their level of importance, in this author's experience. The author has listed the technologies in order of importance, although believes that the first 4 items are essential for the well run modern law office.

Obtaining the right of technology is a key component to the success of every lawyer starting a solo or small firm practice today. Unfortunately, there is no "law firm in a box"; you cannot walk into a computer store in order to get the "solo lawyer starter kit" and then launch your practice the following day. The implementation of any technology whether as a startup, or an integration into an existing firm, takes research and planning.

There are many software vendors that cater specifically to the legal market, giving the lawyer many choices in implementing the “right” technology for the firm, taking into consideration such factors as the skill level of lawyers that will be using the technology, the practice areas of the firm and whether some software is better suited or geared for one type of practice over another, as well as training, and the need and availability of local consultants familiar with the technology. Because law office software becomes such an integral part of the law practice, cost of the actual software itself is a very low priority on the list of considerations. A software package that costs \$200 per seat less, but requires three additional steps to complete a frequent task, resulting in an additional six minutes per day of lawyer’s time being wasted, will cost \$3,750 ( $\$150 \times .10 \times 250$ ) annually in opportunity cost. Most, if not all, of the software vendors provide trial versions of their software. Before purchasing any software for the law office, the prudent shopper will talk to other lawyers using the software, and try the software on a limited basis to ensure that it will perform in the desired setting. Also, the buyer should always keep in mind the law of threes – most things involving computers will take three times longer than expected, cost three times more than budgeted, and be three times harder than anticipated. The sticker price of these technologies is only the tip of the proverbial iceberg. The buyer must not ignore installation and training costs, which may involve engaging the services of a trainer or consultant and cost significantly more than the software or hardware itself. The firm should also anticipate some initial loss of productivity when implementing any new software, as staff and lawyers become accustomed to the new technology. Such expense on the front end, however, should yield huge dividends in increased efficiencies, as the firm successfully integrates such

technologies into its practice.

## **The Computer**

Obviously, key to any technology decisions in a law firm of any size is the computer. The computer prices have dropped dramatically in recent years, while at the same time, their speed and features have inversely increased. In days of old, a lawyer need to plan on spending at least \$3,000 to get a suitably equipped computer, and up to \$5,000 for a "state-of-the-art" machine. Today, \$500, after rebates, will buy a computer of suitable speed and features for the average law practice. Because computers are such an integral part of the law practice, and perhaps especially so for solo and small firm practitioners, "down time" due to unnecessary repairs can be devastating. Accordingly, the purchase of a more expensive computer constructed of higher quality components is, in this writers opinion, worth the additional money. In April, 2005, \$1000-\$1200 will buy a nicely equipped desktop computer from Dell or HP, consisting of high quality components, adequate tech support, and sufficient speed and memory to handle all but the most demanding of applications, such as high resolution graphic rendering (seldom necessary in the law practice). For an additional \$500 - \$800, a comparably equipped laptop computer can be purchased. Laptop computers bring with them in the advantage (and disadvantage) of portability, so the lawyer can work outside of the confines of his office, and as well as receive e-mail, access to the Internet, and other ordinary uses by the computer while traveling. The primary compromise in using any laptop computer as opposed to a desktop machine in is added cost and less

flexibility in the upgrades. While desktop computers typically have 5 or 6 available expansion slots for additional peripherals, the laptop machine can be expected to have, at most, a single half PCI slot, and more frequently has no such slots at all. However, with the addition of the now ubiquitous USB port, and nearly as common "fire wire" port, and the onslaught of peripherals using these technologies, this downside of limited and expensive upgrades is now greatly mitigated, if not altogether eliminated. Laptop computers will also require more expensive upgrades, such as hard drives and DVD drives, due to the proprietary specifications of each computer manufacturer and the smaller size in which the peripherals must fit. This added expense is the tradeoff and cost for the flexibility of having a portable computer.

A second compromise in using a laptop computer as one's primary workstation is a keyboard quality and screen size. While some laptop computers come with screens as large as 17 inches, the more common approach is a smaller 15 or even 12 inch screen, in order to both reduce size and weight, as well as to conserve battery life. Likewise, in order to accommodate a smaller space, frequently laptop computers have used sub-standard keyboards. Both of these issues can be easily remedied however with the use of a docking station or port replicator for the computer, giving the user the best of both worlds. This writer highly recommends the use of a docking station, which will cost between \$300 and \$500, depending on the make and model of the laptop computer, as it will give the user the full efficiencies of a large desktop screen, and a full-sized keyboard and mouse, and the convenience of taking one's work on the road.

In today's modern law office, a computer should have a minimum speed of a Pentium IV (or equivalent) operating at least at 1.5 Ghz, a minimum of a 40 Gigabite

hard drive, and a minimum of 500 Megabites of RAM. Such a computer will handle a suitable number of simultaneously opened Windows programs for the average lawyer without delay or freezing. For those operating highly memory intensive programs, such as voice recognition software, CAD authoring software, or playing 3-D video games, more RAM is recommended, together with a 3D video card using separate memory.

The above discussion is all based upon the purchase of a computer centered around the Microsoft Windows operating system. While Windows XP Home edition would likely meet the needs of most solo practitioners, XP Professional edition is recommended for the office use, due to its more robust networking capabilities. However, while most legal and other business software is written primarily for the Windows operating system, it is possible to operate a law office using the Apple Macintosh platform. Before making such a decision, a lawyer should carefully consider the limited software options that will be available to him in the native Macintosh platform. Apple has put together a helpful list of legal software for Mac lawyers at [www.apple.com/business/solutions/legal.htm](http://www.apple.com/business/solutions/legal.htm). Additionally, Windows "emulators" are available for the Macintosh, which will run most Windows-based programs the within a "window" on a Mac.

## **Word Processors**

Word processors, without a doubt, will be the most used software application in any law office. Regardless of a firm's or lawyer's primary area of practice, the lawyer's advice, action, or work product will ultimately be conveyed in the form of some printed

document. Prior to the late 1990s, WordPerfect was the overwhelmingly favored word processing software for lawyers, due to its ease of use, the efficiency in keyboard commands, and the ability of the user to see the hidden text and formatting by simply pressing "Alt-F3". However, in the mid-1990's, due partially to a miscalculation on the part of WordPerfect in failing to timely create a Windows version of its software, WordPerfect's dominance in the word processing world began to rapidly change. WordPerfect was nearly 2 years behind Microsoft Word in coming to market with a Windows-based word processor, during which time it lost market share that it would never recover.

Perhaps more significant is of the nearly complete adoption of Microsoft Word and of the Microsoft Office suite by the business community – the clients of most mid-sized and larger law firms. Our clients by and large now use Microsoft Word exclusively, and they reasonably expect to be able to transmit documents to their legal counsel in native format to receive editing and comments. Accordingly, WordPerfect's use among large firms has dwindled to almost insignificant proportions. WordPerfect still maintains a larger presence in the small firm and medium firm categories, but Word is still generally the dominant program in these categories as well. Curiously, the latest poll of small and medium sized firms in Mississippi reveals that a majority of such firms continue to use WordPerfect as their primary Word processor despite of the national trend to the contrary.

Both Word and WordPerfect are excellent word processing programs, and contain more power and more features than the typical lawyer will ever utilize. Either program would be an acceptable choice. This writer's preference remains with

WordPerfect, because of the power of "reveal codes" and because of his familiarity with keyboard commands that date back 15 years to the 5.1 DOS version of the program. That preference having been expressed, if I were learning a word processing program from scratch today, I would choose Microsoft Word, as this program will undoubtedly continue to gain market share and dominate the word processing market for the foreseeable future.

Any firm selecting WordPerfect as its primary word processor should also give serious consideration to having a copy of Microsoft Word also available for those times that the firm does receive documents in that format for comment and review. While WordPerfect will convert Word documents, the conversion process is far from flawless, and the round-trip from a native Word document, into WordPerfect, and then converted back into Word, will inevitably lead to formatting errors which are difficult, if not impossible, to correct.

A final consideration when selecting a word processor is the availability of any specialty software that the firm uses or intends to use, and its compatibility with the selected word processor. For example, while HotDocs software operates both with Word and WordPerfect, some add-on modules to HotDocs, such as WealthCounsel's estate planning software, WealthDocs, will only generate a final product in Microsoft Word. Accordingly, some consideration to the firm's entire software portfolio should be given before a final decision on the word processor is made.

## **Time & Billing**

Second only to the word processor, time and billing software is the most important software that any law firm can purchase. Just as word processing software represents the lawyer's means of conveying his work product, time and billing software is the vehicle by which the lawyer ensures he is adequately and timely paid. However, unlike the limited choices of word processing software available, many vendors make time and billing software. Surprisingly, many lawyers have expressed satisfaction with using a simple spreadsheet, or even their word processing software, to generate bills and log time. In this writer's experience, such a method of timekeeping and billing is too arduous and inefficient in all but simplest matters, and fails to make full use of technology sitting on the desktop of every person at the firm. More frequently than not, a lawyer's work on a single matter for a single client will remain open for months, if not years. The only way to accurately track a lawyer's time over such long periods is through the use of some software designed for such time tracking. The second step of the old tried and true method of entering time on paper time sheets, and then having that time entered later by a clerical staff member, can be eliminated if each lawyer enters his time directly on his computer in real-time. This will give the firm the ability to generate accurate, up to the minute reports of time and billing, and enable the firm to realize a much faster turnaround in getting bills out the door, and significantly improving cash flow.

Even firms that bill on a flat fee, or strictly on a contingency-fee basis should give serious consideration to the use of time and billing software. At its most basic level,



the software will record time and expenses that each lawyer spends on each task involved in a client representation. In an hourly billing model, this time, multiplied by the lawyer's hourly rate, will yield the client's bill for the chosen span of time. In cases which are billed on a flat fee or contingency basis, this information is nonetheless valuable, in that it will generate objective data on the efficiency of each lawyer, and the firm in handling each type of matter. By studying such data over time, the firm can recognize which types of cases give it the greatest, or even an acceptable, return on investment, and which types of cases generate such a poor return on investment that they should no longer be handled by the firm.

A third, and perhaps most compelling, reason for computerized time tracking is to provide an accurate trail in the event of a Bar complaint or malpractice claim. If every action taken on a file is documented in time and billing software, not only can the firm be assured of being paid for that time, but if the need ever arises, the firm can quickly print out an accurate timeline of every minute spent by every lawyer on a file. Likewise, in the event that the lawyer needs to justify his fee to a Chancellor, or otherwise seek payment on a quantum meruit basis, an accurate report of all work conducted on the file, and its corresponding time, is available with a quickly printed report.

The following list is a small sampling of time and billing software available for law firms. The list is by no means exhaustive, but it does represent some of the larger participants in this category. Timeslips; Billing Matters; Juris; PC Law; Tabs 3; and Pro Law.

## Case Management Software

Nearly as important as billing software to a law firm, is case Management software. Case Management software is the category of software that organizes the firm's clients, case files, and calendars, in a systematic and relational manner. Through tight integration with independent time and billing software, or through independent integration with its internal time and billing components, Case Management Software can also integrate time and billing into the above list. In lieu of Case Management Software, many lawyers have simply utilized Microsoft Outlook, or similar calendaring and contact management software, for these purposes. While such general-purpose software can no doubt be used in a law firm effectively, CMS is superior in the law setting because it is written with law firms (and other professionals such as accountants and architects) expressly in mind. This software is designed to work the way most law offices work. Clients are entered as contacts. A new case file is entered as a matter or case, and linked to the relevant client. Billing terms are set up upon file creation. Thereafter, files can be tracked by client or by case. Calendaring of upcoming deadlines, court appearances, or other actions to be taken on a file, can likewise be linked to both the client and the case, and each can be appropriately billed. Through such relational linking, it becomes easy to generate lists of upcoming deadlines by file or client and ensure that the work is properly anticipated and budgeted. Many CMS programs even have document management features built in, to ensure efficient indexing of documents that can be easily searched and located.

The cost of this software generally runs between \$300-\$500 per user. While this

can be a significant investment, especially for a startup law firm, the benefits far outweigh the expense, in this writer's experience, and a lawyer will not regret implementing such software from the beginning. CMS simply gives the lawyer a greater degree of comfort and certainty that all of the matters piled up on his desk, on his conference room table, and stuffed in file drawers, are accounted for in a systematic manner, so that none fall through the cracks. Interestingly, this category of software remains ignored by the vast majority of the Mississippi bar. Some of the vendors in this category are: Time Matters, Amicus, Abicus, Client Profiles, Needles, PerfectPractice, and TrialWorks.

## **Litigation Management Software**

If a firm is going to litigate, regardless of the type of case or the primary side of the case, the firm should give some significant consideration to integrating some form of litigation support software into its practice. While there are numerous litigation support software's available, this paper will briefly touch upon two. First, the CaseMap legal suite, which sells for approximately \$900, is an excellent litigation support tool. Essentially made up of three programs, a database (CaseMap), a timeline (TimeMap), and a transcript editor (TextMap), this suite of programs give a lawyer a tremendous tool in organizing both simple, and complex, cases, including management of the cast of characters involved, list of important facts, legal theories and their solutions, as well as places and events. CaseMap also has the ability to link PDF documents into its database, for later quick recall. For more information on the CaseMap legal suite and

its use, a brief paper has been attached as an appendix hereto.

An even more powerful software tool also designed specifically for Litigation Management is Summation. This software integrates trial transcripts, documents and a document database, attorney notes, and some presentation tools, into a single software program. Depending on desired features, this software sells for between \$1,000 and \$2,500 per seat. Although expensive, the software is incredibly powerful, especially in document intensive cases, giving the user the ability to cull thousands of documents down to the relevant set of 10 or 20 in a matter of seconds. The software can also be used to efficiently retrieve, analyze, and produce documents in discovery.

## **Scanners**

Formerly a luxury, every law office should now be equipped with at least one scanner, if for no other reason than to comply with current federal electronic filing requirements, and soon to be enacted state electronic filing requirements. In addition to these soon-to-be mandatory uses for scanners, law offices have a tremendous opportunity to use this new technology to make a life better for lawyers and their staff. Lawyers are required to touch many files each and every day. Occasionally, work on a file is intensive and involves hours of uninterrupted labor on a single matter. However, more often than not, most of files reviewed in a single day are to glean one or two specific bits of information that are relevant to a question or problem that has arisen, such as answering a phone call, or completing a pleading about to be filed. In the

majority of these circumstances, a tremendous amount of attorney or staff time can be wasted looking for and gathering of the relevant file. Even if the file has been properly filed away and can be quickly located, transporting the file from the file room to the attorney and back to the file room simply takes time. If the firm utilizes its scanning technology to scan every piece of paper relevant to a file into a electronic "folder" matching that file, the lawyer and need not touch the physical file each and every time a small question arises. Rather, from his desk top, the lawyer can view the relevant documents on his screen, and complete the work to be performed, or answer the inquiry right from his computer terminal. Likewise, frequently documents must be sent to other lawyers, either counsel opposite or co-counsel. Rather than locating a physical paper file and running pages through a fax machine each time the need arose, a virtual file can be quickly located, dragged to the virtual "fax machine" icon, such as WinFax, or dragged to any e-mail attachment, and quickly sent to the relevant party, all without the lawyer leaving his desk or touching a single piece of paper. Fast, inexpensive scanners make this efficiency possible. An added benefit is the file backup that is created through this process, creating an automatic archive of the file in question. A final benefit is gained from the absence of storage of scanned files. Once a system is in place which scans each document in a file, the attorney can confidently retain the electronic file and return or destroy the physical file, saving on file storage space for closed files. This author recommends a flatbed scanner with an automatic document feeder, capable of scanning 15 to 30 pages per minute. Visioneer makes an excellent line of scanners and is focused on the small law firm market. Their 9750 PDF scans up to 20 pages per minute and costs \$900. Fujitsu makes an excellent line of high capacity scanners, and

generally focuses on higher scan speeds. Many lawyers have expressed satisfaction with the company's ScanSnap scanner, which sells for around \$700 and scans up to 30 pages per minute duplexed. Other scanner manufacturers to consider are Canon, Panasonic, Kodac, and HP. For maximum compatibility with other programs, it is advisable that any scanner purchased be TWAIN compliant.

## **Voice Recognition**

Once merely the optimistic fiction of Star Trek, very fast computer processors and inexpensive memory have now made voice recognition technology a thing of the present. While voice recognition software has been around for the past decade, it never really worked very well until the past three years. During that time, most of the major software manufacturers abandoned their voice recognition software, and currently only one viable product remains on the market- Dragon Naturally Speaking. DNS is currently on version 8, and the program it is very accurate and is suitable for use in a law office, provided that the lawyer is willing to train of the software. While Dragon works well with only 20 minutes of training out of the box, even a 98% accuracy rate can be very frustrating for a lawyer (imagine two out of every 100 words transcribed incorrectly). Further training is necessary in order to get the software to operate at levels acceptable to a lawyer. Such training is as simple as locating incorrectly transcribed words, giving the software of the command to correct the word, and instructing the software of the proper word intended. As these additions to the software vocabulary are made, and proper correlations between the users of voiceprint and

intended words are made, the software over time becomes extremely accurate and can save considerable time in drafting, and expense in transcription staff.

Not every lawyer will have the patients required to use voice recognition software, however those that do can be greatly rewarded in increased efficiency. Two keys are crucial in successfully implementing voice recognition software in the law office. The first is use of high quality microphones. While many microphones can be purchased and will operate voice recognition software, this writer has previously been frustrated with unacceptably low accuracy rates, until purchasing a high quality studio microphone. The best microphone is the Sennheiser headset microphone, or a Sennheiser boom mic. These are available from [www.emicrophones.com](http://www.emicrophones.com) and from [www.knowbrainer.com](http://www.knowbrainer.com). If used with a poor quality sound card, or any sound board built into the motherboard, a USB sound card should likewise be used. This eliminates machine “noise” that will interfere with speech recognition. The second key to successful voice recognition implementation is to have a third-party proof read the end product. It is far too easy for the author of a document to read what he intended to say rather than what is actually written, and miss careless errors. This fact becomes much more crucial in voice recognition software because the computer never misspells a word (unless its vocabulary has been mis-programed), but it will frequently transcribed an unintended word, which will often closely resemble the intended word. The transcribing author is less likely to catch such mistakes, but a third-party reading the document fresh is more likely to identify such errors.

This paper was written entirely with voice recognition software. The first half of the document was dictated into an Olympus DS 4000, a portable digital dictation device,

from which a .wav file was converted to text using Dragon Naturally Speaking 8.0. The second half of the document was dictated directly into the computer utilizing a Sennheiser MD431 II microphone. I am aware of several lawyers in the State who have effectively incorporated voice recognition software into their daily practice. Voice recognition is a technology whose time has come.