

ESTABLISHING A COMPUTER COMPONENT
A USER'S MICRO-GUIDE

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As the automation of law offices continues to accelerate, the issue of computer education for paralegals is becoming a high priority in institutions across the country. Attorneys are rushing to compete for the latest technology; even the small offices and the solo practitioners are experimenting with hardware and software, micros and modems. Since the use of computers has come to pervade all areas of law practice, from research to automated documents to litigation support, a well-trained paralegal will soon, by definition, be well-grounded in computer applications. This trend toward automation presents paralegal educators with new questions and challenges. What training can a program offer in this highly technical field? What equipment and expertise are required for an institution to integrate computer training into its curriculum?

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To address these questions it is necessary to review the ways in which paralegals already use computers in their jobs. At present, the computer applications a paralegal can be expected to perform fall into four categories: automated litigation support, word processing, general office and case management functions, and research.

Computers have long been used in large law firms as "super indexers" for masses of documents and large trials. As it is now possible to perform these tasks on microcomputers, automated litigation support is becoming practical in relatively small cases. Any paralegal who plans to work in litigation should be trained to make use of computers in this area.

Word processing is perhaps the next most frequently used computer skill. In automated offices, virtually all documents and pleadings are put onto some form of magnetic storage, usually floppy disks. Such storage allows a paralegal to prepare pleadings or documents in any variety of legal transactions by merely filling in the blanks.

In the area of office and case management, paralegals regularly use computers for billing, accounting, docket and financial systems. Finally,

computerization of law firm in-house libraries, and research using both legal and non-legal data bases are becoming commonplace in large and medium size firms. Within the next five or ten years, paralegals will be expected to work with such data bases as a matter of course.

Because these applications can be performed on microcomputers, which are relatively inexpensive and easily available, paralegal program directors can implement computer training without investing large sums of money. The scope of any computer component will, of course, depend upon the time and resources an institution can devote to its development. The following is a list of suggestions for setting up a computer lab and developing a basic curriculum.

SETTING UP THE COMPUTER LAB:
PURCHASING HARDWARE AND SOFTWARE¹

The first task in developing a computer component is to purchase suitable hardware and software for hands-on training. Ideally, an institution will already have a complete microcomputer

1. See Appendix I for readings and vendor information on hardware and software; see Glossary for explanation of technical terms.

lab that can be made available to students. Program directors with access to an existing lab need only purchase specialized legal software for classroom instruction. Those without the necessary hardware will have to start from byte one.

In selecting a microcomputer for classroom training it is important to remember that any eight or sixteen bit micro which supports a CP/M operating system is adequate. Although IBM/PC and IBM/PC compatible machines are quite popular, non-IBM machines, such as Northstar, are generally available at lower cost. A dot-matrix printer can be added at low cost as well and will suffice for teaching purposes. Although more expensive, letter quality printers can be purchased at reasonable prices.

Other necessary equipment includes floppy disks and modems. While hard disks allow storage of vast amounts of information, such storage is rarely needed for instructional purposes; floppy disks will generally provide all the storage necessary for student training. A modem is necessary for communicating with the legal data bases WESTLAW and LEXIS, or with any remote data base. To use WESTLAW, for example, one needs a microcomputer, a 1200 baud

modem, an acoustical coupler for the telephone or a telephone jack in the wall, and an inexpensive communications software disk, such as CROSSTALK or COMMIX.

A word of caution: those buying hardware on a low budget will find that the real bargains come with very little installation or training. It is essential, therefore, that a technical troubleshooter be available to assist with problems that arise. It is likely there will be a great deal of troubleshooting during the first year of operation. Error messages of various sorts seem to be the major form of communication with computers in the beginning months, and computers that worked beautifully in the store may become recalcitrant and even aggressively hostile machines when placed in the lab.

There is at present relatively little microcomputer software specifically designed for law offices, except in the area of timekeeping and billing. Fortunately, most word processing and data base management systems for business are generally appropriate for law offices as well. Specialized timekeeping and billing systems with calendar and accounting components have been developed for law

offices, but they are expensive. For instructional purposes, it is advisable to purchase only the demonstration software packages, which are available at low cost.

When the computer component was established at Saint Mary's College in Moraga, California, the basic system consisted of two Northstar computers, one letter-quality printer, one dot-matrix printer, and four software programs: WordStar (word processing), dBASE II (data base management system), Citation (bibliography), Supercalc (electronic spreadsheet), and a demonstration package for Verdict Timekeeping and Billing System. Later, a communications package, COMMIX, was added to access WESTLAW. The purchase of the hardware occurred a few months before the IBM/PC arrived to overwhelm the market. Following almost two years of operation, this seems to have been a reasonably good choice.

THE CURRICULUM²

FAMILIARITY WITH APPLICATIONS

While access to a computer lab is necessary for hands-on training, it is nevertheless possible to offer computer instruction without a lab. It is better to teach students in the traditional lecture format than not to begin at all. Institutions without equipment can offer computer instruction as part of an existing course or design a separate course, with or without a demonstration computer, to familiarize students with computer applications in a law office. The material covered in such a course should include the following components:

(1) A basic explanation of computer technology as it relates to a law office, including the various computer configurations, printers, operating systems, and the like, that a paralegal might encounter on the job. Information about how a computer works is useful, but instruction in programming is not, since paralegals will almost never be called upon to write software programs.

2. See Appendix II for a sample syllabus of a course in using computers in the law.

(2) An explanation of legal research as it is performed on WESTLAW and LEXIS, with emphasis on the difference between traditional and electronic research. Here it may be possible to arrange a demonstration with the local WESTLAW and LEXIS representatives or perhaps with a law school library.

(3) An investigation of non-legal data bases, such as NEXIS, DIALOG, and BRS (ideally, with a demonstration). This unit should include an explanation of how researchers can use these hundreds of data bases to obtain factual information in virtually every field of human activity, from advertising to zoology.

(4) An explanation of the applications of word processing in a law office, including automated document systems.

(5) An examination of the use of computers for litigation support both in very large cases with outside service bureaus and in very small cases with microcomputers.

(6) An overview of in-house libraries, calendar/docket systems, client file indexes.

(7) An introduction to timekeeping and billing systems, general ledgers, management reports, electronic spreadsheets for financial planning.

(8) An explanation of electronic mail and telecommunications.

(9) Specialized applications in areas of substantive law, such as tax, estate planning, real estate.

HANDS-ON TRAINING

A basic problem in computer education for paralegals is that most computer applications take time and concentrated practice to learn. Even with the most user-friendly systems, one still must dedicate hours to become familiar with word processing, data base management design and applications, electronic spreadsheets, or accounting. It is not possible, therefore, to expect students to become proficient in all these applications during an introductory course. One must choose either to limit the focus of the course to two or three applications with substantial hands-on training or to give brief exposure to many applications without the expectation of proficiency. Hands-on training requires supervision by trained computer lab assistants who can help students with the operation of the machines. By scheduling different lab times to use the equipment,

it is possible to train as many as fifty students per semester, with two students per computer. With a ratio of no more than four students to each lab assistant, the lab time can be used productively. The course instructor or the assistant pool should develop pre-planned exercises in each application for this lab time. Those applications for which there is no time for hands-on training should at least be demonstrated. The following are suggestions on the skills to develop, in order of priority:

(1) Word processing, with special attention to document creation and merging.

(2) WESTLAW or LEXIS training in legal research. WESTLAW has special rates available for paralegal programs and can be accessed from almost all microcomputers. WESTLAW usually charges by the terminal; therefore, it is economical to use only one terminal for WESTLAW instruction. Since searches are fairly short and time is valuable, one terminal connected to a monitor in front of the classroom should suffice.

(3) Simple data base management functions, perhaps starting with a rudimentary calendar or in-

house library and moving up to a simple litigation support system.

(4) Electronic spreadsheet applications such as financial planning, projection of damages, and the like.

(5) Packaged timekeeping and billing system.

The computer labs at Saint Mary's College have had mixed results, and the experience there has been one of limited success and a great deal of frustration. In this area, as in the area of choosing the system, there must be a central person with knowledge of computers to develop the course, design the exercises, train the lab assistants, and supervise students and instructors. For hands-on training at Saint Mary's, a minimum of four hours is devoted to a word processing exercise, two hours for a data base management exercise, and two hours using WESTLAW. Demonstrations only are given in the areas of accounting, electronic spread sheets, timekeeping and billing. Students who have completed the required time and produced their required work may have access to more computer time.

EXTENDING THE COMPUTER COMPONENT

Developing automated systems for law practices is a new, but potentially radical breakthrough in the way law is practiced, and computer applications now pervade almost all areas of the law. Ideally, then, computer applications should be integrated into almost all the substantive courses in a paralegal training program. The most obvious candidate for such integration is the use of WESTLAW or LEXIS in the legal research and writing courses, but other classes could make use of computer units as well. Courses in civil procedure, for example, might offer exercises in computerized litigation support. Family law courses could include exercises using automated document systems which could produce all documents in a divorce or adoption. Courses in estate planning could make use of automated wills, and law office management courses could introduce financial modeling exercises.

The most difficult aspect of extending the computer component to substantive courses is re-educating the faculty. Since almost all program directors work with part-time faculty, their instructors have little spare time. While the faculty

may be interested in developing a computer unit in their courses, they lack the time and expertise to do so. Here again, the services of a central person with knowledge of computer applications in the law may be useful in encouraging the faculty, in helping them to find the appropriate software, and in teaching them to use the computers themselves.

FINAL ADVICE AND CAUTION

The good news is that students generally appreciate the opportunity to be introduced to computers in a law practice context. Employers are also impressed with this exposure, and it may boost the placement rate of a paralegal program. The bad news is that much work is required to establish a successful computer component, especially one that includes hands-on training. Someone must take responsibility for organizing the component and troubleshooting the hardware, software, and lab aspects of the computer component. This is a commitment paralegal program directors may be reluctant to undertake. Computers play an integral role in most law offices, however, and a computer component will enable a program to continue to address emerging issues and demands of the evolving paralegal profession.

APPENDIX I

SELECTED BIBLIOGRAPHY

Books

Mason, Mary Ann. An Introduction to Using Computers in the Law. West Publishing Company, St. Paul, Minnesota, 1984.

Journals

Law Office Economics and Management. Callaghan & Company, Wilmette, Illinois.

Legal Economics. American Bar Association, Chicago, Illinois.

Infoworld. Popular Computing, Inc., Palo Alto, California.

The Lawyer's Newsletter. Law Publications, Inc., Los Angeles, California.

SELECTED SOFTWARE

Word Processing

Applie Pie
Programma International
3400 Wilshire Blvd.
Los Angeles, California 90010

Easywriter II
Information Unlimited Software
281 Arlington Avenue
Berkeley, California 94707

MultiMate
Software Systems, Inc.
52 Oakland Avenue, North
East Hartford, Connecticut 06108

Scriptsit 2.0
Radio Shack
Tandy Corporation
Fort Worth, Texas 76102

Spellbinder
Lexisoft, Inc.
Box 1267
Davis, California 95616

WORDSTAR 3.0
MicroPro International
1224 4th Street
San Rafael, California 94901

Financial Management

Data Law Company
Time & Billing, General Ledger, Calendar
DATA LAW SYSTEM/3
OS = CP/M 2.2
Runs on: CP/M machines, especially for
TeleVideo
Tutorials, dealers, phone support, hard disk
support; dealers have demo programs.

Star Software Systems
Time & Billing
STAR SYSTEM 5, LEGAL TIMEKEEPING & BILLING
OS = CP/M, MP/M, CP/M86, MS-DOS
Runs on: CP/M machines and IBM-PC
Tutorials, dealers, phone support, hard disk
support. Includes accounts receivable
information. Interfaces with Star System I
General Ledger Program.

Micro Craft, Inc.
Billing & Time, General Ledger, Calendar,
Reports
VERDICT, GENERAL LEDGER, REPORTS
OS = CP/M, CP/M86
Runs on: IBM, and all CP/M, CP/M86 machines.
Tutorials, dealers, phone support, hard disk
support.

Advanced Legal Software
Law Office Management, Time & Billing
ADVANCED LEGAL SOFTWARE
OS = CP/M, CP/M86
Runs on: CP/M computers. Price varies
depending on system configuration.

Litigation Support for Microcomputers

DSI
(DOCUMENT SERVICES, INC.)
Seattle, Washington

INSTITUTE FOR PARALEGAL TRAINING
Philadelphia, Pennsylvania

DATA LAW COMPANY
Englewood, Colorado

INMAGIC, INC.
Cambridge, Massachusetts

LAW OFFICE COMPUTER SYSTEM
Pasadena, California

Computer Assisted Legal Research (CALR)

Auto - Cite
Lawyer Co-operative Publishing Company
On-line data base allowing the user to check
case citations which are keyed to ALR books.
Gives brief history of case.

LEXIS

Meade Data Central
Similar to WESTLAW, and is now accessible to
microcomputer users.

JURIS

Computer-aided research system operated by the
federal government for internal use only.

PHINET

FEDERAL TAX DATA BASE
Prentice Hall
Accesses Prentice Hall Federal Taxes
loose-leaf service.

Newsnet

Information Utility
Contains specialized newsletters on-line,
including: Tax Notes Bulletin Service (and
five other tax-related newsletters), Legal
Bulletin of International Business, Hi Tech
Patents and others.

Dow Jones

Dow Jones News/Retrieval Service
Information Utility
Contains news from Wall Street Journal,
Barron's and Dow Jones News Service. User can
search text of stories by key word.
Information on over 6,000 publicly held
companies, SEC information, financial
information, Dow Jones Quotes, etc.

DIALOG

Lockheed
Information Utility
Contains several hundred distinct and useful
data bases.

KNOWLEDGE INDEX

Lockheed
Information Utility
After hours subset of DIALOG

CompuServe
Information Utility
Prime Competitor to The Source. Offers
similar services.

NEXIS
Meade Data Central
Information Utility
Not available to micro users.

The Source
Source Telecomputing Corporation
Information Utility
General purpose information utility including
electronic mail.

APPENDIX II

SAMPLE SYLLABUS-----USING COMPUTERS
IN THE LAW

- Week I A. An overview of the applications for computers in law practice.
 B. A demonstration of WordStar, dBASE II, and WESTLAW.
- Week II A. A brief explanation of how computers work and appropriate computer "buzz words."
 B. An introduction to using WordStar.
- Week III A. An explanation of word processing applications and automated document systems.
 B. An introduction to using dBASE II.
- Week IV A. Private Data Base. An introduction to in-house litigation systems and private libraries.
 B. Further demonstrations of using dBASE II.
- Week V A. Guest Speaker. Full service litigation support company.
- Week VI A. An introduction to automated time-keeping and billing, calendaring and conflict of interest.
 B. A demonstration of time-keeping and billing system.
- Week VII A. Accounting and Financial Planning.
 B. Demonstration of SUPERCALC (financial spreadsheet).
- Week VIII A. An introduction to Public Data Bases: WESTLAW, LEXIS, DIALOG.
- Week IX A. A visit to an automated law office.
- Week X A. Review and discussion of future trends.
- Week XI Final Exam

Each student must put in a minimum of 6 hours supervised time on the computer (with a partner). A work product is required using WordStar, dBASE II, & WESTLAW.

There are weekly reading assignments from INFOWORLD and An Introduction to Using Computers in the Law.

GLOSSARY

ALS (Automated Litigation Support) Using the computer to assist in the storage and retrieval of documents in preparation for trial. Can also include using computers for graphic representations and statistical analyses for trial exhibits.

BINARY DIGIT (BIT) In the binary number systems, either the character 0 or 1.

BRS Public nonlegal data base.

BYTE In most computers data is stored and transmitted in multiples of eight bits, called a byte.

CALR (Computer Assisted Legal Research) Making use of a computerized data base of legal sources, such as WESTLAW or LEXIS to perform legal research.

COMMUNICATIONS PROGRAM The software program that allows one computer to exchange data with another.

CP/M A popular operating system used by many eight bit microcomputers.

CPU (Central Processing Unit) The essential core of the computer system, contains the Arithmetic/Logic Unit, Main Memory, and the Control Unit.

DATA BASE MANAGEMENT A system in which information is organized efficiently for storage and retrieval. Can be a common data base with access by many user terminals.

DIALOG The largest nonlegal information broker. Offers over 170 data bases in technical, non-technical, and general news.

DISK Used for auxiliary mass storage. Magnetic disks can be flexible (floppy) or hard (Winchester). Laser disks are a new option.

ELECTRONIC MAIL The use of telecommunications to forward electronic information from one computer to another.

HARDWARE The machinery of the computer system.

LEXIS One of the two major legal data bases, produced by Meade Data Central. Contains all recent judicial opinions and a great deal of law in specialty areas.

MAINFRAME The largest type of computer, it can have a main memory of several megabytes, and because of its great speed, support hundreds of thousands of users.

MAIN MEMORY or STORAGE The part of the Central Processing Unit where data is stored for instant retrieval and processing by the Arithmetic/Logic Unit.

MICROCOMPUTER A small, multi-purpose computer which contains at least sixty-four kilobytes of memory and can be purchased for under \$5000 (without printer or software).

MINICOMPUTER Between a microcomputer and a mainframe. Costs more than \$10,000 and can support multiple users.

MODEM The piece of hardware required to change computer digital signals into analog signals for transmission along telecommunications wires.

NEXIS Public nonlegal data base.

OS (Operating System) The software that controls the flow of data entering and exiting the computer system.

SOFTWARE The program instructions which tell the computer what to do. Software programs include: operating systems, language assemblers, compilers or interpreters, utility programs, and applications programs.

SUBSTANTIVE SYSTEM A system designed to handle all aspects of a legal transaction, such as a trust or a divorce. The system may be computerized or manual.

TELECOMMUNICATIONS The process of transmitting information electronically from one location to another.

WESTLAW One of the two major legal data bases. Contains all recent court opinions and a great deal of law in specialty areas.

WORD PROCESSING A computer application that allows the editing and manipulation of text without re-typing the entire document.