THE DEVELOPMENT AND IMPLEMENTATION OF A COMPUTERIZED SCHEDULING AND RECORD KEEPING SYSTEM FOR A COLLEGE COUNSELING CENTER

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In February of 1996 the UTC Counseling and Career Planning Center began implementing a new system of computerized scheduling and record keeping. This document is a combination narrative description and illustration of this system. Those who have had even the most cursory exposure to computer technology probably already realize the difficulty inherent in explaining a computer system in narrative fashion. We tried to be as specific as possible without getting entrenched in unnecessary details. The most salient features and capabilities of our system as well as the process are described herein. If you contact us with specific questions, we will attempt to clarify the feature or the concern you have. Better still, if we were able to present this system directly through a live presentation to your agency, department, or organization you could see the features explained and demonstrated first hand.

GETTING APPROVAL AND FUNDING

For years our staff had tried to secure the money to implement a system for us to be able to schedule and track our cases on computer. Research into already existing record keeping programs kept turning up a plethora of software designed for private practice settings using primarily a medically-oriented approach to administration and documentation. They focused mainly on diagnosis and treatment issues along with billing. These did not adequately meet the needs of an educational setting in which counseling was offered as a student service and cases are conceptualized more developmentally and less medically.

At the beginning of 1995 some staff changes were made that resulted in one position being unfilled for a few months. This, of course, was difficult for the remaining staff members, but the relatively brief period quickly resulted in salary savings that could be administratively diverted to equipment. This was a compelling argument to the Student Affairs chief officer who had verbally supported our need for computerization but consistently turned down the funding request because of budgetary limitations. Even more compelling was that the new staff member hired to fill the vacant position was highly proficient in computer technology and had both the enthusiasm and ability to make it a reality. After researching our needs he was able to provide a cost estimate that was well under the salary surplus available. The potential for such a system to be used by Student Affairs and by other University offices was also pointed out. In addition, we indicated that this could be used as a showcase to other counseling centers, thereby providing our center and our university increased recognition. Indeed, we have already had other departments in the University express an interest in purchasing and implementing our system.

Believe it or not, we were able to purchase the equipment we needed and got the system functioning under budget. This included two computers for staff members who did not have them, the server, software (including network software) and all other hardware necessary to implement the system. Approximate total cost was \$6600.00. The resulting system works with PC's, MAC's or both. This cross-platform capability works well for centers which already have some computers and allows staff to use their preferred type. The software we've developed has an identical look and feel on PC's and MAC's. For centers with no pre-existing hardware, equipment and software costs for up to 5 work stations can probably be under \$10,000.00. Consultation expense would vary depending on the level of computer expertise already possessed by center staff.

DESCRIPTION

The system consists of three separate software programs linked by one server. These programs are: Meeting Maker, Filemaker Pro, and Pegasus. Meeting Maker provides for scheduling of all counselors' time as well as necessary resources that must be scheduled (e.g. group rooms, video equipment). In addition, counselors, each of whom has a workstation, can access one another's' schedules and schedule meetings automatically with whatever staff they designate at whatever time they designate. Filemaker Pro is an electronic filing system that allows the creation of separate records for each client and can be accessed and completed by other staff on the network (different levels of security access can be provided to different staff via password privilege). The format of these records can be customized for each center's individual needs. Pegasus is a well-known email program that can be used for staff to communicate directly with one another, with the entire staff, or with any combination. This can be helpful when more detailed or more confidential information needs to be communicated. Since Pegasus is so widely available and our use of it is not unique from the use by any other office or agency, it will not be described in this document.

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System Requirements:

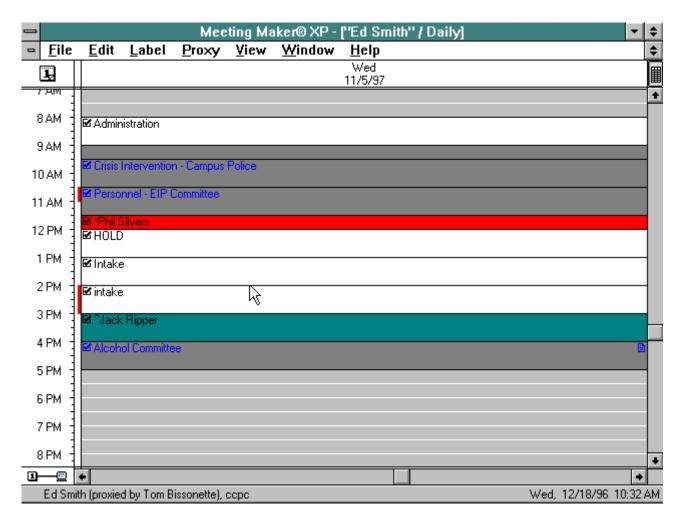
- ***A server that is an IBM Compatible Pentium 133 or higher with 16 megs of RAM (166mghz or higher with 32 megs RAM recommended), or a Macintosh SE or higher running System 7 or above and a minimum of 8 megs of RAM for System 6 and 16 megs of RAM for System 7. (System 7 and 32 megs recommended).
- ***At least 300 megs of hard disk space available on the server.
- ***Novell NetWare 3.11 or higher or Windows NT
- ***Workstations need to be IBM compatible Pentiums with 16 megs of RAM or greater, Windows 95 and 50 megs of available hard disk space; or MAC Quadra 610 or higher running System 7 or above, with 50 megs available on the hard disk. Additional RAM can improve performance substantially. Networks performance can be effected by many factors so contacting your tech support staff in advance of making any purchase is recommended.

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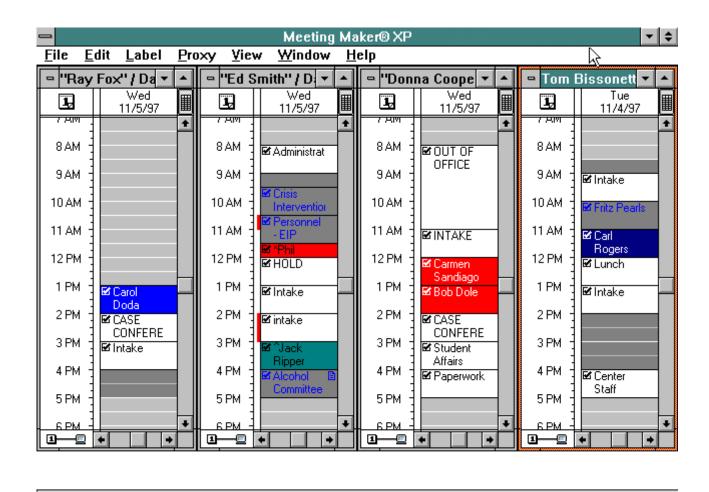
Meeting Maker

Meeting Maker displays daily, weekly, or monthly schedules on the screen. The most commonly used viewing options include one counselor's single day, several counselors' single days, one counselor's week, or one counselor's month. Each is illustrated below using fictitious clients:

Single Day



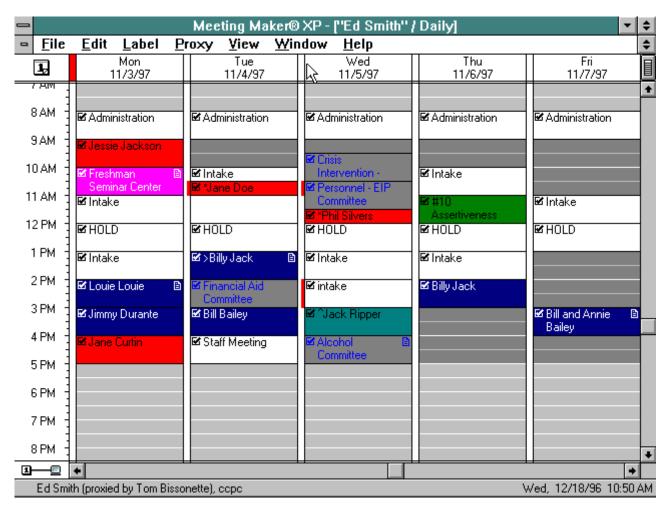
Four Counselors Single Day



One Counselor Week

Tom Bissonette, copo

Wed, 12/18/96 10:40 AM



One Counselor Month

Meeting Maker® XP - ["Ed Smith" / Monthly] ▼ ◆							
□ <u>F</u> ile <u>E</u> dit	<u>Label Pro</u>	xy <u>V</u> iew <u>W</u>	indow <u>H</u> elp			\$	
November 1997							
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
26 8:00 Administrati 12:00 HOLD	27 8:00 Administrati 11:00 Intake 12:00 HOLD	28 8:00 Administrati 10:00 Intake 12:00 HOLD	29 8:00 Administrati 10:30 Personnel 12:00 HOLD	30 8:00 Administrati 10:00 Intake 12:00 HOLD	31 8:00 Administrati 11:00 Intake 12:00 HOLD	1 8:00 Administrati 12:00 HOLD	
2 8:00 Administrati 12:00 HOLD	3 8:00 Administrati 9:00 Jessie Jac 10:00 Freshman	4 8:00 Administrati 10:00 Intake 10:30 *Jane Doe	5 8:00 Administrati 9:30 Crisis Interv 10:30 Personnel	6 8:00 Administrati 10:00 Intake 11:00 #10 Asser	7 8:00 Administrati 11:00 Intake 12:00 HOLD	8 8:00 Administrati 12:00 HOLD	
9 8:00 Administrati 12:00 HOLD	10 8:00 Administrati 11:00 Intake 12:00 HOLD	11 8:00 Administrati 10:00 Intake 12:00 HOLD	12 8:00 Administrati 10:30 Personnel 12:00 HOLD	13 8:00 Administrati 10:00 Intake 12:00 HOLD	14 8:00 Administrati 11:00 Intake 12:00 HOLD	15 8:00 Administrati 12:00 HOLD	
16 8:00 Administrati 12:00 HOLD	17 8:00 Administrati 11:00 Intake 12:00 HOLD	18 8:00 Administrati 10:00 Intake 12:00 HOLD	19 8:00 Administrati 10:30 Personnel 12:00 HOLD	20 8:00 Administrati 10:00 Intake 12:00 HOLD	21 8:00 Administrati 11:00 Intake 12:00 HOLD	22 8:00 Administrati 12:00 HOLD	
23 8:00 Administrati 12:00 HOLD	24 8:00 Administrati 11:00 Intake 12:00 HOLD	25 8:00 Administrati 10:00 Intake 12:00 HOLD	26 8:00 Administrati 10:30 Personnel 12:00 HOLD	Thanksgiving 27 8:0-c/Administrati 10:00 Intake 12:00 HOLD	_	29 8:00 Administrati 12:00 HOLD	
30 8:00 Administrati 12:00 HOLD	1 8:00 Administrati 11:00 Intake 12:00 HOLD	2 8:00 Administrati 10:00 Intake 12:00 HOLD	3 8:00 Administrati 10:30 Personnel 12:00 HOLD	4 8:00 Administrati 10:00 Intake 12:00 HOLD	11:00 Intake 12:00 HOLD	12:00 HOLD	
Ed Smith (proxied by Tom Bissonette), ccpc Wed, 12/18/96 10:56 AM							

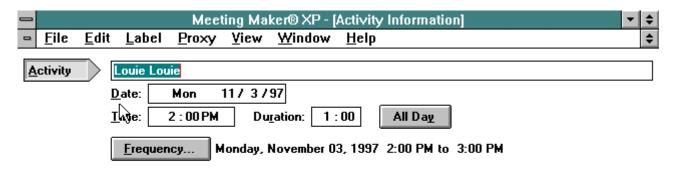
The dates on the calendar can be scrolled backward, forward, up, or down. You will note that Saturday and Sunday are hidden in the above diagram, but they can be included with the click of the mouse. The calendar icon in the upper left corner allows the user to go directly to any day in the past or future.

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Various types of appointments can be can be differentiated and activity reports can be generated automatically from the calendar. Appointments can be entered according to type of service received, which is indicated by seven different colors (i.e. seven categories of service + an eighth indicated by not coding in any color). We chose to use the categories personal, career, clinical, group, outreach, and consultation/service (e.g. individual consultation with faculty, training programs, committee service, service in community organizations in which we represent the University). Codes are used to indicate cancellations, no shows, etc. Note on diagram #3 the > sign before the name of the 3 p.m. appointment on Wednesday. This indicates that the person rescheduled. Similarly, <= canceled, ^= no-show and *= initial appointment (new client). This allows us to track all of these and to divide them according to type of service when generating weekly/monthly/annual reports. All we have to do is search for these symbols and we get an immediate total of how many times they appeared (this does require that each counselor be responsible for the accuracy of his/her schedule). For us, this is simple since we refer to our schedules daily when writing session summaries. Also, note that we keep track of number of clients served in groups in much the same way. Referring again to diagram #3, notice on Thursday at 11 am. There were 10 people in this group indicated by <#10>. These can be calculated to show how many contact hours were generated by each group (in this case, 10 members for one hour = 10 contact hours) and all appointment names, codes and symbols are exported to generate activity reports.

Another feature of Meeting Maker is that you can search your schedule both forward and backward. You can determine, for example, if you have seen a client before, when you saw the client, or if you're scheduled to see that client in the future. You can also search based on other fields (i.e. key words in your notes section). This has proven to be very useful in a variety of situations. Most options can be controlled from the schedule screen as

well as from a screen you can access on each appt. called "Activity Information" by double-clicking on that appt. or by highlighting that appt. and then using the file menu. Below is an example of the activity information screen on the 11/3, 2 a.m. appt.



Notes Called yesterday and said he may be running a f	few minutes late because professor recentlly
Options Set the reminder and label for this activity.	
Private	Invite Guests Update
☐ Flexible	THAIRE GRESTS
Ed Smith (proxied by Tom Bissonette), ccpc	Wed, 12/18/96 11:34 AM

In this diagram, also note the "NOTES" icon. Here you see a brief information). You can then proceed from one field to the next with the use of the tab key or with the mouse. We have eight forms we use. They are:

- 1. Intake Form demographic information
- 2. <u>Client Record</u> a narrative record form to summarize background information and first visit.
- 3. Test Log a log to keep up with the status of any tests administered.
- 4. <u>Form letters</u> -Three forms for letters to the client that we want to keep as part of the computerized file.
- 5. Envelope-a pre-addressed envelope (must be able to print out envelopes on your printer).
- 6. <u>Summary-pertinent information once a client is terminated</u>.

We have elected to maintain regular session notes on paper, since each brief note would require an entire page to be printed out, making the file too thick and wasting paper. You could wait until you had an entire page filled before printing out, but we considered this unnecessarily troublesome since the most important information we are likely to need on a client that we could not get from the paper file as quickly is included in the four main forms.

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An example of the four main forms on a fictitious client, Mr. Bill Lee Bailey appear below:

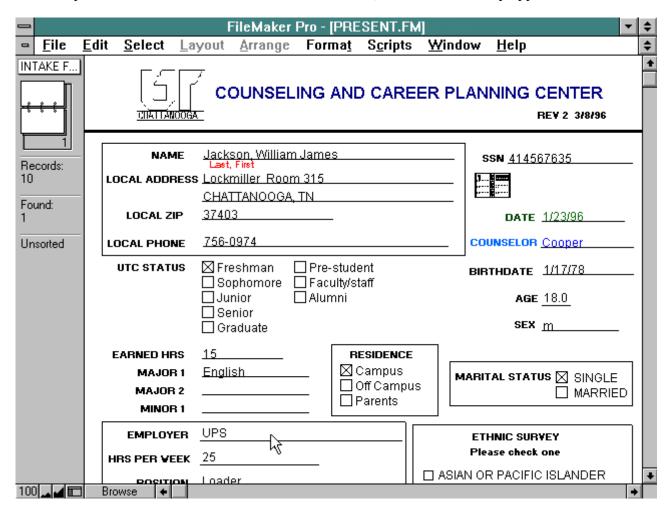
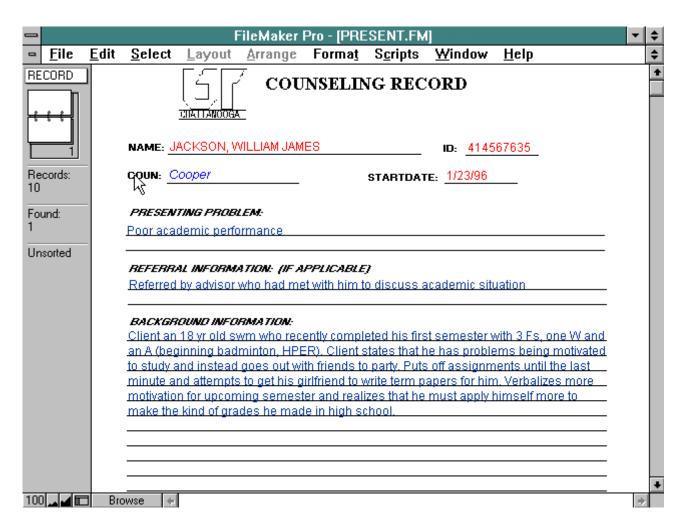
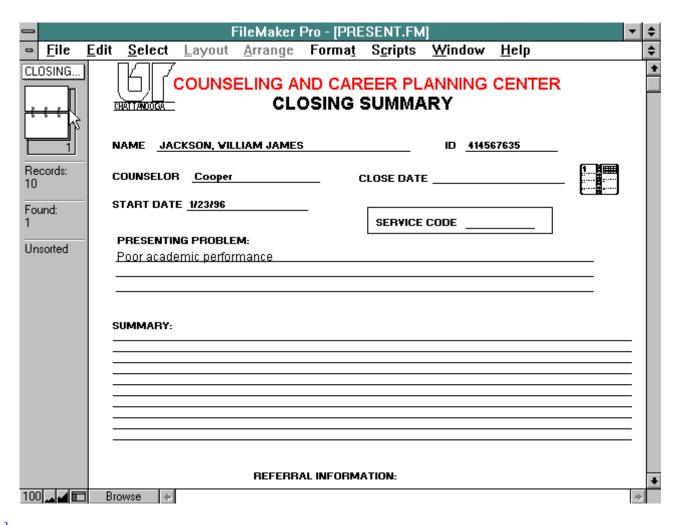


Diagram #1 is our intake form. If you click on the icon box in the upper left that says "INTAKE F..", the other forms will appear and you can then go to them by clicking the mouse. They appear as follows:

Client Record



Closing Summary



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For each form, the small "rolodex" icon tells you how many total files are in your database and how many files you have "out". You can page backward or forward through the list by clicking on the rolodex pages while in the "browse" mode (button in the lower left labeled "BROWSE"). If you click on the BROWSE button, other options appear, the most important of which is the "FIND" icon. This allows you to search your entire database using any field or combination of fields. For example, I could type in Mr. Bailey's name or any portion of his name in the name field and immediately locate every record in our data base that fit that description (e.g. "Bailey, "Bailey, Bill", or "Bailey, B"). I could then use the rolodex icon to browse through these until I found the correct one. Naturally the "SSN" (ID number) field is the most exact since only one client can have a specific ID number. Suppose, however, that I only know I am looking for someone named Bailey but don't know full name or ID number. I can take whatever information I do know (for example, his name is Bailey and I was his counselor and I remember he was married and that he was male) and use this combination to locate Mr. Bailey data.

As mentioned, our center obtains the University's database of all students each semester and downloads this database into our file. Then, when a new client comes in, we can call up his/her file based on ID (or name) and have a half-completed intake form on the computer screen. We then verify its accuracy, can add the information we need, and then print it out for the file. If a new client is not in the database, we can create a new record.

Other conveniences include the date book icon which automatically inserts the days' date by clicking on it (positive reinforcement for doing your record keeping promptly!) automatic calculation of age from birth date, and other pre-printed entries for certain fields (e.g. counselor and city) that save time and typing energy.

As you can see from the TESTS form, we can also keep up with dates of administration, scoring, and fee collection for the tests we commonly administer.

Also important is the ability to generate reports using all or any combination of these various fields. For example, suppose you wanted to know all the males who saw Ms. Cooper from April, 1995 through June, 1996. This could be located and printed out or tabulated in seconds. You can also add your own fields (e.g. diagnostic terms or DSM codes) and include these as searchable fields.

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SECURITY AND ETHICS

In regard to security, we go by the same "Three-lock" guideline we employ with written records. Concerning information on our network, we consider a password protection as a "lock". Our offices are locked (1), it requires a password to boot (computer jargon for turn on) (2), and another password to get into Meeting Maker and FMPro (3). FMPro also allows you to have different levels of security. Therefore, secretaries (with one password) can access certain forms in the file while clinical staff (with another password) can have another level of access that allows them into more (or all) forms. In addition, we have screensavers that come up and require a password to re-access the information on the screen. We believe that this is as secure as written information. Sure, a skilled computer hacker can get through passwords, but ANYBODY with a hacksaw can get through a lock!

There are other questions concerning ethics and confidentiality, however. We researched the ethical guidelines currently in place and, what little we could find is included below. In addition, other thoughts and a case history are included to illustrate a few salient points.

One notable piece of information obtained while attempting to research this area was an email note from Kay Schepp at the University of Vermont. This is reprinted with her permission below:

Hi Ed,

One of my own children is in charge of a segment of computer security at L Livermore Nat'l Labs and he reminded me of an important point when I was asking for confidentiality of Windows NT and the finer points of fighting hackers. Ron says that the biggest leak is people, not chips. He challenged his technical staff to hide a "salary" file and guaranteed that he could find it in two days. Instead of wasting an evening trying to break in or hack it, he just watched, and easily saw people, staff, and ways to access things when the main person is out, etc. You could [in our presentation] include ideas for plugging the people leaks, as data is entered and accessed, etc., as an important aspect of confidentiality.

I believe that point is worth repeating:

THE BIGGEST LEAK IS PEOPLE, NOT CHIPS !!!!

And now on to more formal guidelines:

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ETHICAL CONSIDERATIONS IN COMPUTERIZED RECORD KEEPING IN A COLLEGE COUNSELING CENTER

(From "Steppin' Into the 21st Century with Computerization", October 17, 1996, Southeastern Conference of Counseling Center Personnel, Nashville, Tn., Tom Bissonette, MSW and W. Ed Smith, Ph.D.)

RESULT OF THE 1993 DIRECTORS SURVEY CONDUCTED BY BOB GALLAGHER ON ITEMS RELATED TO COMPUTERIZED STORAGE OF CLIENT INFORMATION (N=55)

121 centers (34%) put client information on computers

Most put their information on floppy discs or the hard drive, but 11 centers put data on the main frame.

Only 51 centers reported that they put client case notes on the computer.

81 centers reported that the director and all counselors at the center have access to information on other counselors' computers.

Of the centers that store client information on computers, 54 expressed concern about appropriate access if the computer needs to be repaired by an outside repairman.

51 directors reported that they have lost computer-stored data on clients.

14 centers have had a computer stolen.

108 directors believe that if a computer is stolen that it would be possible for someone to gain access to client data on the hard drive.

103 directors state that they would feel ethically bound to notify clients that a computer containing client data was stolen.

As you can see, concerns about confidentiality are something of which we are aware. It seems, however, that we are only in the early stages of coming to grips with some very real ethical issues, when it comes to the area of computerized record keeping.

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FORMAL PROFESSIONAL GUIDELINES

Below are some of the areas of our professional guidelines that could be related to the issue of computerized record keeping. This represents the most recent published guidelines, but it must be kept in mind that this is a very contemporary issue that all of our organizations are currently in the process of addressing. As such, the ethical practitioner should make every effort to stay abreast of any modifications or new ethical issues that arise. Direct references to computerization of records are highlighted in bold.

Ethical Standards of AACD (ACA)

Section B: Counseling Relationship

- 1. The member's primary obligation is to respect the integrity and promote the welfare of the client(s)...
- 2. Members make provisions for maintaining confidentiality in the storage and disposal of records and follow an established record retention and disposition policy. The counseling relationship and information resulting therefrom must be kept confidential, consistent with the obligations of the member as a professional person....
- 5. Records of the counseling relationship, including interview notes, test data, correspondence, tape recordings, **electronic data storage**, and other documents are to be considered professional information for use in counseling, and they should not be considered a part of the records of the institution or agency in which the counselor is employed unless specified by state statute or regulation....
- 6. In view of the extensive data storage and processing capacities of the computer, the member must ensure that data maintained on a computer is: (a) limited to information that is appropriate and necessary for the services being provided; (b) destroyed after it is determined that the information is no longer of any value in providing services; and (c) restricted in terms of access to appropriate staff members involved in the provision of services by using the best security methods available.

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General Principles

Principle D: Respect for People's Rights and Dignity

Psychologists accord appropriate respect to the fundamental rights, dignity, and worth of all people. They respect the rights of individuals to privacy, confidentiality, self-determination, and autonomy...

Ethical Standards

1.14 Avoiding Harm

Psychologists take reasonable steps to avoid harming their patients or clients....and to minimize harm where it is foreseeable and unavoidable.

5.04 Maintenance of Records

Psychologists maintain appropriate confidentiality in creating, storing, accessing, transferring, and disposing of records under their control, whether these are written, automated, or in any other medium....

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RECORD KEEPING GUIDELINES

American Psychological Association

Drafted by the committee on Professional Practice and Standards

A committee of the Board of Professional Affairs

Adopted by the Council of Representatives,

February, 1993

(published in American Psychologist, September, 1993)

Underlying Principles and Purposes

Psychologists maintain records for a variety of reasons, the most important of which is the benefit of the client.....

- 2. Construction and Control of Records
- a. Psychologists maintain a system that protects the confidentiality of records. They must take reasonable steps to establish and maintain the confidentiality of information arising from their own delivery of psychological services, or the services provided by others working under their supervision.
- e. Records may be maintained in a variety of media, so long as their utility, confidentiality and durability are assured.
- 5. Disclosure of Record Keeping Procedures
- a. When appropriate, psychologists may inform their clients of the nature and extent of their record keeping procedures...

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Preamble - "This code is based on the fundamental values of the social work profession that include the worth, dignity, and uniqueness of all persons as well as their rights and opportunities."

- II. The Social Worker's Ethical Responsibility to Clients
- H. Confidentiality and Privacy The social worker should respect the privacy of

clients and hold in confidence all information obtained in the course of professional service.

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IACS GUIDELINES FOR SITE VISITORS REGARDING ELECTRONIC RECORD KEEPING

(3/10/94)

Drafted by the Electronic Record Keeping Committee: Bob Gallagher, University of Pittsburgh, Chair, Judy Mack, University of California-Davis, Herb Bolland, Clarion University, Patsy Donn, Ball State University

(Author's Note: Upon my cursory review of this area I was proud to discover that we apparently have addressed this area more directly and specifically than any organization in our field)

Advancing technology is greatly affecting record keeping policies in many counseling centers. It is anticipated that as counselors become more computer literate in the years ahead, the electronic storing of client information will become almost universal, and policies for how this information is maintained will be standardized.

For the foreseeable future, however, centers will vary considerably on what kind of information is filed electronically and on how it is stored and protected. Consequently, it will be difficult at times for site visitors to make informed judgments about whether or not these new record keeping procedures are in agreement with IACS standards.

The following guidelines may be of some help in making these decisions:

Site visitors should, first of all, look to the "Record Keeping Guidelines" of the American Psychological Association. APA's general position on records is that they "may be maintained in a variety of media so long as their utility, confidentiality and availability are assured."

Beyond this general statement, however, when reviewing electronic record keeping systems, site visitors might want to consider the following questions.

- 1. Does the informed consent form indicate to students that records are maintained, the purpose of records, and the confidential nature of the records?
- 2. What methods are utilized to prevent unauthorized individuals from accessing the data base?
- 3. Are coding or other techniques used to avoid the inclusion of personal identifiers on case notes?
- 4. Has a system been set up within the Center that controls who has access to client records?
- 5. Does the system allow for a director or other appropriate person within the Center to access client's record when necessary?
- 6. Do supervisors have access to the records of their supervisee's clients?
- 7. Is there a plan in effect that assures that the utility and confidentiality of client information is protected in the event of the counselor's death, incapacity, or withdrawal from the Center.
- 8. Is client data stored on the main frame? If yes, what evidence is available that this information is protected?
- 9. When computer specialists are employed by centers to develop and maintain the electronic record keeping system, what kind of special training about client confidentiality do these individuals receive?

Computer storage of records presents new possibilities and complications. However, the major consideration should be that records are protected and confidential, that clients are informed of any limitations in

confidentiality and those persons with legitimate needs can access the records.

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CASE AT UTC COUNSELING AND CAREER PLANNING CENTER REGARDING A CLIENT'S OBJECTION

The client had been a client of the Counseling and Career Planning Center off and on for several years. While not considered clinically paranoid, the client had a history of physical and sexual abuse that had been disclosed only over an extended period of time, and with a great deal of difficulty. As might be expected, the client frequently expressed significant and legitimate concerns about confidentiality. At the beginning of one session, I offhandedly mentioned some of the records being on my computer. To this the client reacted quite strongly and needed repeated assurances that all information password protected and physically secured behind locked doors. Several times I analogized the information on disk to written information in terms of security and access. Despite this "logical" argument on my part, she adamantly expressed concern about this, especially her discomfort with not being told beforehand that case information would be recorded on a computer. It was obvious that, for her, the mere fact that the information was typed out on a keyboard and not a typewriter and stored electronically and not in a folder in a file drawer had special meaning, whether justified or not.

At first I minimized her concern in my own mind. Upon further consideration, however, it occurred to me that, justified or not, as long as it was something with which she was uncomfortable, it deserved to be considered seriously, especially her concern about not being informed of this in advance.

After more consideration and discussion, one of the end results, at least partly due to this one interaction, was that the Counseling and Career Planning Center altered the informed consent presented to each new center client. Now included in our statement is the following:

All records, both computerized and "hard copy" will be stored and retrieved according to acceptable ethical guidelines.

Since this clearly informs the individual that records are computerized, and since it is clearly stated at the end of our informed consent that the client is encouraged to ask any questions about <u>anything</u> in the informed consent, we believe this is a reasonable and sufficient effort to insure the client's rights.

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CONCLUSION

I'm sure you're not surprised that we have found our efforts at computerization very rewarding, though it, like most change, it has been trying at times. We firmly believe that our services to our clients has been enhanced by this addition and that it has been well worth the effort. Hopefully this attempt at describing our system has managed to convey this to you. We would welcome the opportunity to be invited to higher education conferences to present first hand.

If you have any questions or comments, we would look forward to hearing from you. We certainly are available for consultation if you decide to explore alternatives for your center.