Leon County
Board of County Commissioners

Automation Manual

Adopted March 10, 1992

Leon County Automation Standards

Subject: Leon County Automation Guidelines

The safeguarding of the county's data assets and fundamental principles of accountability for the expenditure of public monies require that certain responsibilities be clearly defined.

The Management Information Services Department (MIS) will provide cost and time effective information services by taking the leadership role and providing support in effective use of computers and information processing to meet the objectives of quality service.

To support this statement, the following shall be considered standard guidelines and procedures for Leon County.

1.   Working with the Applications committees, the CJIS Steering committee and the MIS Steering committee, the MIS manager shall have primary responsibility for all computerization in Leon County.

2.   The MIS Users group(s) representing each department of the County shall be oriented toward information and technical exchange and recommending application software standards.

3.   The MIS Department, and specifically the MIS Manager, shall be responsible for coordinating the computerization response to, and recovery from, a natural disaster for all departments in the County.

4.   Documentation, including software changes and source code, shall be developed (According to accepted professional standards) for each computer system to allow for a smooth transition in the event of a change in key personnel. All future systems or changes to systems shall adhere to these same documentation standards.

PURPOSE

The purpose of this document is to establish guidelines relating to acquisitions, use and support of **all County-owned, Data Processing and Office Automation equipment and software.** This includes mainframes, mini computers, workstations and personal computers\ micro-computers (PCs) located both in the MIS Department and outside the MIS Department.

A copy of these guidelines will be given to every computer user in the County so that users and MIS can refer to this document when questions arise.

If a topic in this document has been covered in a memo previous to the revision date of this document, these guidelines will replace **all previously issued memos.**

How to Use This Document

This document is organized by function. Forms are listed in the **Sample Forms** section. Their usage is explained in the "How To" sections. Master copies are placed in **Appendix B.** The forms in **Appendix B** can be easily removed as a group from the document and copied as needed. To assure that the current form is used, please refer to the revision number and date, as explained below in the **Updates** section. These forms will be replaced with electronic forms in the near future.

Updates

Updates to this booklet will be distributed to all users as needed. **PLEASE UPDATE THIS BOOKLET AS SOON AS NEW PAGES ARE RECEIVED.** In the near future a copy of this booklet will contain a revision number and date to verify the current version.

Contact MIS with any suggestions for improving the format of this document.

SAMPLE FORMS

Throughout this document, references are made to "notifying MIS in writing."

To help the user departments with this procedure, and to standardize documentation in MIS, blank master forms are provided for the following activities (See Appendix B of this manual.):

ACTIVITY	FORM NUMBER
Authorization for Job(s) (Request & Pickup)	B-4
Backup Log for Users	B-3
Hardware/Software request	B-6 (2 pages)
Installation/Relocation (Equipment/Hardware)	B-7
Maintenance Call Log	B-2
PC Training Course Evaluation	B-1
PC User Training Survey & Authorization	B-5

Please make copies of the master forms as needed, and use these forms instead of composing memos for the above listed activities.   In the near future, a copy of this booklet or any page of the booklet, such as any of these master forms. Each page of the booklet will contain a revision number and date to verify the current version of that particular page.

Feel free to contact MIS about any problems with the forms or any suggestions for improvement.

GENERAL USER PROCEDURES

One of MIS's primary responsibilities is to protect the integrity of all information stored on County-owned computers. Security procedures are instituted not to keep information "secret," but to ensure that County data does not become corrupt.

Data Security

Corrupted data, whether on a PC or mainframe, is a very serious problem. It is extremely difficult and time-consuming to correct bad data, and in some cases impossible to recover; it can cause serious problems if the bad data is used to develop reports for internal or public use before the data errors are discovered. Security precautions are taken to help prevent the loss and corruption of data, and, therefore, prevent the costs to the County of correcting such-data. One precaution is document with the form for Authorization for Job(s) (Request and Pickup): requesting and / or picking up reports, that MIS prints from the mainframe programs, is restricted to personnel who are authorized by their work area supervisor through the use of this form.

Employees are not permitted to knowingly falsify County records that are stored on county computers systems. (County computer system include personal computer, minicomputers, networked computers and mainframe computers.) Falsifying records include the unauthorized modification, deletion or removal or deletion is detrimental to employment. Such action will result in disciplinary action.

Password

All passwords (whether for micro, mini or mainframe computers) must be handled in the same manner. Passwords are **not** to be taped on or under terminals or keyboard; or stored on, in or near the user's work area/ desk. If remembering a password is a concern, the user is cautioned to write the password on paper that is carried in his/her wallet or purse. **MIS will change any password, without prior notice, when the password is posted near a work area. There will be no exceptions.**

1).   **Mainframe Passwords**

Passwords for mainframe access will be assigned in MIS by the Operations Manager or his/her alternate. Passwords are randomly generated with a minimum of six (6) characters. Mainframe password will be change by MIS every six (6) months. Users may change password as often as desired at the IBM initial menu. Users will be notified before the change occurs to prevent disruption of service. **Passwords are not to be disturbed via the interoffice mail.**

2).   **DEC VAX Passwords**

Users are responsible for assigning their own passwords on DEC VAX systems in the County.

When a new VAX application is brought into the County, the MIS Manager will work with the user to set up initial user accounts.   Users will be asked to submit a password to MIS Manager or Operations Supervisor in a sealed envelope.

Passwords will **automatically expire** everyone hundred-eighty (180) day.   The VAX will warn the users when the password is about to expire.   Using the appropriate menu selection from the log-in screen, user will follow the screen prompts to assign new passwords.   Passwords must be a minimum of six (6) characters and should not be the user's name, car model, pet's name, or any similar word that could be easily discerned.

3).   **Novell Network Passwords**

Only System Administrators automatically receive passwords on the PC networks.   The Administrator can control all other network access without the use of passwords.   Stand-alone PC's do not, as a rule, require passwords.   However, security can be added upon request.

Existing Employees/New Employees

1).   It is the responsibility of the employee's direct supervisor to notify the MIS Manager in writing when a computer user is terminating employment with the County or relocating to another department/division.

2).   MIS will also be notified, in writing, of all new computer users, as this helps prevent unauthorized use of the system and allows MIS to provide better support.

Secondary/Backup Users

Every computer user in the County should have a **backup** or secondary user trained to take over his/her functions in the event that the primary user is not available.   Every work area supervisor will be responsible for designating the backup users.

Backup users are required for both packed and in-house developed systems.   It is most important that the supervisory staff of the County recognizes and acknowledges this need.   It is more time-consuming to try to train someone in an emergency situation than it is to have a backup person trained by the primary user before an emergency occurs.   Backup users should be given regular opportunities to use the system in order to keep proficient.

HOW TO REPORT A SYSTEMS PROBLEM

Please call the support staff at MIS.

All calls for PC service **must be placed by the System Administrator**(the MIS liaison in each agency, responsible for coordination on computer-related conflicts) **or alternate**.   Only in the case of an emergency should a non-designated user call for support.   Users should notify their administrator/alternate whenever questions or problems arise.   The individual will then call MIS if the problem cannot be resolved within the user area.   User departments are not to call vendors directly unless directed to do so by MIS, or if a prior agreement has been made as indicated in this document.

When calling MIS to report a problem, please provide the following information.   MIS utilizes a specific format for logging calls, and it is very beneficial if the caller has as much information available as possible.

1)   Identify yourself and your division.

2)   Explain the user's actions when the problem occurred.   (Was he/she creating a spreadsheet?   Using WordPerfect?   Adding record in DBASE?   Updating case information for the Case Entry screen in New CJIS?)

3)   Describe the case symptoms of the problem in the order of occurrence (e.g., "I was adding a paragraph to my memo and I hit the ENTER key.   The screen flashed white, then black. Now I have a flashing cursor in the left corner, but the system won't respond.)

4)   MIS may ask the user to try some activities on the system and/or may come to the work site.   If MIS cannot fix the system, arrangements will be made for maintenance.

5)   If MIS states that arrangements for maintenance are being made, and a repair person does not show up within eight (8) hours, please call MIS again.   Do not sit for several days with a non-functioning system.   Once a call has been placed for repair, the problem should be corrected within one working day, unless parts need to be ordered or repair must be accomplished by a vendor who has the flexibility of a longer response time, according to an existing maintenance agreement.   Please report to MIS if the repair person does not arrive.   Before calling, try to use the device.   Occasionally, the repair person completes a repair when no employee is in the area.

6)   Please call from a location near the inoperable device.

HARDWARE:
STANDARDIZATION & ACQUISITION

All county computer equipment must be compatible with the County's Networking Plan, and approved in the Leon County budget. MS/DOS-based PCs will continue to be the main PC standard.

To provide the most flexibility, maximum support, and the most economical maintenance, the Mis Department recommends that all purchases of future equipment be as follows: MIS, with the approval of the MIS Steering Committee, is responsible for the evaluation of new equipment.

Standardization

1)   MS-DOS Operating System/DR. DOS 6.0 - Desk top PCs
          Models: Memorex- Telex
                              IBM

2)   MS-DOS Operating System/DR. Dos 6.0 - Portable/Laptop PCs
          Models(s):   TO BE ANNOUNCED

3)   Printer
          Models: HP LaserJet
                              Dot-Matrix

How To Request Hardware

During the budget process, please complete the Hardware/Software Request form and send it to the MIS Manager, or call the MIS Department for assistance. MIS will review it to ensure the requests conforms to the standard and will submit all request to the appropriate steering committee for their approval.   In case of an emergency, or extraordinary circumstances, MIS will assist and getting the necessary purchasing approval.

Licenses/ Warranties/Maintenance Agreements

A file of all licenses, warranties, and maintenance agreements for hardware will be maintained at MIS.   An optional copy may be maintained at the user site.

Contracts/Purchase Orders (Pos)/Request For Purchase Orders (RPOs)

1)   All contracts for purchase and support (both hardware and software) must be reviewed by
          MIS.   This does not preclude review by the Legal Department or any other authority.

2)   A copy of all contracts for purchase and support of computer equipment must be submitted to MIS.

3)   Pos and RPOs, for the purpose of purchasing computer equipment, should be initiated by the appropriate Manager or his/her designee. MIS will assist in developing Pos and RPOs.

4)   It is the responsibility of each user area to correctly follow all Leon County Purchasing regulations when ordering supplies.

Inventory

1)   All hardware purchased must be tagged per the Leon County Fixed Asset procedures. Please call Purchasing Property Control for inquiries regarding these procedures.

2)   If hardware is delivered directly to the user site, through prearrangement with MIS, the receiving department is responsible for calling Property Control.

3)   MIS will maintain a hardware/software inventory of all computer equipment in the County. If a department receives equipment, MIS must be notified in writing in order to up-date the inventory records.

Moving/Relocating Equipment

1)   If an entire office is being moved to a new location, all computer equipment should be moved by the moving company handling office furnishings. MIS will disconnect all computer devices to prepare for the move; but will not box the equipment as personnel and supplies are unavailable for this task.

2)   MIS should be notified at least four (4) weeks in advance of any move. This will allow time to install the necessary cabling at the new location and to schedule disconnection of equipment.

3)   MIS will re-connect and test at the new location.

4)   If relocation of any computer devices within an existing work area is necessary, please call MIS for assistance. An Installation/Relocation form should also be submitted to MIS. Please allow one (1) week advance notice.

5)   A diagram of the location of equipment for the new office should be provided with the installation/relocation request.

Software: Standardization & Acquisition

The County's philosophy is to encourage cost-effective use of computers (including mainframe, mini and microcomputers); to provide users with a procedure for acquiring software; and to promote the sharing of applications and experience among departments.

It is recognized that most software packages are copyright protected, and the County has procedures to protect these rights.

MIS Responsibilities:

1)   Provide a list of the software that constitutes a **Basic Software Package (see Appendix A.)**   Notify the user when updates are available and whether or not the County is recommending instillation of the upgrade.

        MIS, with the approval of the MIS steering Committee, is responsible for keeping up with industry trends and evaluating new software.   If the user community has software or knows of software that does the job, MIS will take the necessary step to evaluate the software.

2)   Develop and maintain a list of all software in the County, indicating what level of support is provided for the software (in- house beginning/advanced; vendor support only or both); where it is located; what operating system it runs under; minimum hardware configuration and known restrictions.

3)   Provide individual user training and act as a consultant whenever possible.   Work with the County Training Officer to help develop class alternatives for County Employees (**see Training Schedule Manual**.)

4)   Whenever possible, arrange for quantity discounts, maintenance, etc., that will result in a reduced cost to the County without increasing risk or decreasing benefits.

5)   Evaluate software packages, as requested by users, to assure hardware compatibility and satisfactory fulfillment of the user's needs.

6)   Investigate the feasibility of performing minor modifications of purchased software.   The investigation will only be conducted on packages with source code available. If it is determined that a modification can be made, it will follow the same rules for MIS Manager approval as any other software modification.   Any developer's warranty, or voiding of such warrant, will also be considered before a change is made.

7)   When justified, and if technically feasible, provide the user with access to mainframe or minicomputers for the purpose of updating, retrieving or downloading files.   All security procedures for accessing the mainframe will be enforced, including all regulations for

owner's approval prior to access.   (**See Software Support for User Developed Applications**, number 2 on page 12 of this manual.)

Selecting/ Purchasing Software

1)   Please complete the **Hardware/Software Request** form and send it to MIS or call MIS for assistance.

2)   MIS will assist in preparing Pos and RPOs for software purchases.

3)   Software should be included in each Department's budget.   Purchases should follow the Leon County Purchasing Policy.

4)   Users are encouraged to identify potential software packages that appear to satisfy their information processing needs. **Users must notify MIS if a software demonstration is going to be held, using County-owned computers.**   In a network environment, it may be necessary for an MIS PC staff member to attend the demonstration and assist in loading the software to prevent corruption of the network and/or demonstration problems.

Software Support for User-Developed Applications

1)   User will maintain and troubleshoot user-developed software and provide documentation to MIS as defined in this document.

2)   User applications may not update (change) any data file on the County's computers, nor knowingly change other users' files on a network without the file owner's written approval.   Access to files may be granted only to the file owner.

Software Installation

1)   MIS is responsible for the instilling of the Basic Software Package and upgrades. Installation of other purchased software packages (both off-the-shelf and custom), if required to preserve the integrity of the PC network, will be performed by MIS.

        The user should check with MIS prior to installing a packaged or custom software application on a County- owned computer unless prior arrangements have been made.

2)   If the PC System Administrator has arranged with MIS to install packaged software, the package must be backed up prior to installation.   The **original** software, the package must be backed up prior to instillation.   The original software media (disk) should be labeled and stored in an off-site location, away from the user area.   The copy of the software should be used for the instillation whenever possible.

3)   If software is delivered directly to the user, the user will notify MIS in writing for inventory purposes.

License/Audit Requirements

1)   Users will follow all Leon County procedures for security, control, user training, and backup as identified elsewhere in this document.

2)   Users will **maintain a file of all software licenses for MIS and auditing verification**. This   rule applies to all purchases made after 02/25/92.   One copy of the software must be kept at the user location.

Personal Use

1)   Personal use of equipment/software is prohibited except for training and education as approved by each department's director.

2)   Hardware/Software is not to be removed from County property without permission of the user's management.

Software Copyright

According to U.S. Copyright law, illegal reproduction of software can be subjected to civil damages of as much as $100,000 and criminal penalties including fines and imprisonment.

1)   Leon County government recognizes the legal protection afforded by the copyright laws.

2)   Each County owned PC will have the original, program diskettes, for the software that is licensed to that particular PC, in a location accessible to the PC for verification of license(s) and for maintenance of the software/hardware.

3)   No employee of the County is allowed to copy any software purchased or created by the County for his/her own personal use.

4)   All software created by the County employees on County time is the property of the County except where prior written agreement has been made.

5)   MIS reserves the right to remove illegal or pirated software from any County-owned computer.   Software that is not listed with MIS and/or has no license in the required user software license file, will be considered illegal.   MIS staff may preform software audits at any time without prior notification.

6)   County employees who persist in maintaining illegal or pirated software on their PCs may be disciplined as stated in the Personnel Policy Manual.

Virus Protection

Software not approved by MIS will not be allowed. Shareware and other software will be submitted to MIS for approval. MIS will maintain antivirus software and will attempt to ensure that software, loaded on County-owned machines, is virus free.

This means that if a department has software that does the job for them, MIS will take the necessary steps to have the software reviewed and approved.

Conclusion

1)   Copyright violation could result in legal action against the violator.

2)   Violation of County Policies/Guidelines will be dealt with as detailed in the Personnel Policy Manual.

Computer Training Guidelines

It is understood by Leon County that employees may need to acquire or sharpen their computer skills to effectively accomplish their assigned job task.   To accomplish this end, it is the goal of the County Management to provide effective, timely and economical computer training to all county computer users or prospective computer users as need arises.   When approved by the Board of County Commissioners, a formal computer training program will be instituted.   To effectively respond to management goals and users training requirements, the following guidelines have been developed.

Classes Offered

1)   Training will be available in all the Basic Package applications including Introduction to DOS, WordPerfect, Word for Windows, Lotus 1-2-3, Excel, DBASE III Plus and Windows 3.0 This training will be done at a local vendor site and funded by the requesting department.

2)   Custom training seminars will also be offered.   Departments with custom-developed applications and large numbers of users may make arrangements ahead of time for development of training curriculum and/or class scheduling for their applications. Departments may reserve the training lab on a space-available basis.

3)   During 1992, training classes will be added in selected network applications.

Length of Classes

1)   PC classes are offered in one or two day sessions.   Class length varies depending on the features and complexity of the program.   Class sessions are usually scheduled in the morning (from 9:00 a.m. to 12:00 p.m.) and in the afternoons (1:00 p.m. to 4:00 p.m.).

How to Register

Any County computer user or potential County computer user is eligible to register for training classes.   Priority will be given to employees who are currently using PCs.   The employee seeking training should complete the following steps to register:

1)   Make a copy of the PC User Training Survey and Authorization Form (see attachment in Appendix B).

2)   Complete the form, listing all prior PC experience and listing the priority of desired courses to be taken.   The potential registrant's supervisor should sign the form and then return it to MIS.   It is essential to complete the survey before requesting a seat in a class. The survey forms allow MIS to accurately track the number of students who have requested and completed the courses.   Future training courses and number of classes sections are also based on these statistics.

3)   MIS will confirm receipt of the registrant's Survey Form.

4)   The registrant is then placed on a waiting list for each selected course. MIS will then contact the student to schedule him or her, except when open schedule is solicited by MIS.

MIS Scheduling

Registrants are scheduled for classes on a priority basis.   Criteria for scheduling priority is derived from:

1)   Data taken from the Survey Forms, identifying the registrants as a **heavy user** or potential, heavy user.

2)   A call from the registrant's supervisor requesting priority seating due to job-specific needs.

Open Scheduling

1)   Occasionally, all priority seats for classes are filled and space is still available in some classes. At this time, MIS opens scheduling to any registered student.   Registrants may call MIS to request seating in a class that fit their schedule.   Accommodation is made on a space available basis.

When the registered student has been scheduled, a confirmation notice will be sent to him/her, informing him/her of the date, time and place of the class. A course outline and additional information about the class will included with the confirmation.   The student does not need to bring software or purchase training materials.   All materials are provided in the class.

Class Completion

At the completion of a class, students will be requested to complete a PC Training Course Evaluation Form which is used to gauge the value/effectiveness of the class.   Students may elect not to return the form to the instructor, but may complete and return them from their own work areas.   Students may also elect to place their names on the forms or to remain anonymous.   At the completion of the class, the student will also receive a completion certificate.

Attendance

Each class builds on the functions learned in the previous class.   Therefore, attendance at every class is required.   If a student is unable to attend a class, the student will be cancelled from the class and rescheduled at a later date.   If it is necessary for a student to leave a class early or arrive late, he/she must inform the instructor ahead of time.   The student and the teacher will agree on the best course of action in the event that such tardiness affects the student performance in the class.

Cancellations

If it is necessary to cancel a class, MIS request that the student do so with as much lead time as possible. Since there may be other students waiting to take the same class, such lead time may allow MIS to find a replacement student. The cancelling student is also encouraged to recommend a replacement student from his/her department.

DOCUMENTATION

Every user-written application will be properly documented.   These guidelines must be followed to enable MIS to provide support.

A minimum of two(2) copies of the documentation will be produced.   One (1) copy will be sent to MIS; the other copy will remain in the originating department, and must be in **an easily accessible location.**

Contents of a Minimal Documentation Package

1)   A system proposal, to be produced prior to the development of a system.   A copy of the proposal should be given to the developers supervisor for approval of the project.   A copy will also be sent to the MIS Manager.

        A system proposal should state:

            The purpose, benefits and cost effectiveness of the system,

            estimated development time,

            and a narrative description of what the system will do and how it will be designed.

        This proposal ensures that:

            The developer's supervisor is aware of and approves the project.

            MIS reviews the project and offers assistance if needed.

            The developer plans the project before starting programming.

2)   A hard copy listing of all application source programs.

        Note: These listings must be reprinted and redistributed each time an application modification is made.

3)   A file definition report.

        This report will contain:
- the coded name of each field
- an easily understood description
- field sizes
- editing information
- File location (directory/catalog/filename)

4)   A list of all indexes created for the file, if applicable.

5)   Sample reports, if not included in the User's Manual.

6)   For spreadsheets application, a copy of the spreadsheet template and formulas.   (The data in the spreadsheet is not required.)

7)   A copy of the User's Manual and the names of the primary and backup systems users.

If the application is too simple to require a manual, a narrative description of the purpose of the software, the user of the software and frequency of producing reports must be included.   The User's Manual should be written so that a novice user can utilize the software effectively. Formats for Sample User Manuals are available from MIS.

Documentation should be complete and informative enough to permit MIS to support the software in the event that the author is not available.   Software written by employees is not beneficial to the County unless it can be supported and utilized in the event of the author's absence.   All software created by County employees on County time is the property of the County unless prior arrangements have been made.

NOTE: This documentation is required to be in place when the system becomes "live." "Becoming Live" is defined as the point in time when the software starts being used to store and manipulate non-test data.   Software is considered live even if the author is still making modifications to it once non-tested data has been entered into the system.

Testing/Evaluating User Developed Applications

1)   All user-written applications must be thoroughly tested prior to becoming live.

        Testing will include:

        o   entry of sizable number of test records into the system.   These records must contain a wide selection of variables (for example, if the file is keyed on name, names from the beginning, middle and end of the alphabet should be entered as test data).

        o   entry of test records prepared from actual data input documents.

        All reports, updates and other systems will be tested on this data.

        It is necessary to use **data based on real information** during the testing process in order to verify that the system is working correctly.

        All system output, including reports and screen displays will be carefully reviewed. Whenever possible, a person **other than the author of the system** should verify output.

BACKUP

It is mandatory for all users data files that have been modified during the previous twenty- four hours, to be backed up on a **daily basis**.   This guideline pertains to mainframe, minicomputers, and Pcs.   Backup of (mainframes and minicomputers).   System files will be backed monthly or after each change is made.   A backup will be taken of the system files before any change is made.

If the current backup tape or disk is not available, MIS cannot restore any corrupted or lost files.

Procedures/Backup Documentation

1)   Each user should write his/her backup procedure, as clearly as possible, and insert it into the front of a backup notebook.   This procedure should include:
- o   instructions on how to backup
- o   how long to archive the tapes/disks
- o   where the backups are stored   (Backups should be stored in a physical location away from your computer.)

2)   Each user area should keep a backup notebook.   The notebook should contain:
- o   date
- o   time
- o   backup tape or disk number
- o   initials of the person preforming the backup

A Backup log for Users Form is provided in this manual.

3)   Each tape/disk should be clearly labeled/number for log-in purposes.

4)   A minimum of one (1) week's worth of backup should be maintained at all times. Department heads should exercise prudent judgement with regard to large or sensitive files.   Of course, backups for longer than one (1) week may be kept.   Please call MIS if assistance is desired in developing your archiving procedures.   Upon request, MIS will store backups off-site with MIS backups.

Errors During Backup

1)   If errors are noticed when backing up or restoring tapes/disk, please notify MIS so that a determination can be made on whether or not to replace media.

Restoring From Backup

1)   In the event that restoring from a backup is necessary, please call MIS for assistance.

Please contact MIS at 488-5813 about any questions on your backup procedures.

MAINTENANCE CONTRACTS /CALLS FOR SERVICE

Maintenance contracts for all County-owned PCs, mainframes, and minis will be coordinated through the MIS Department.   MIS will negotiate the contracts.   This procedure will allow the County to receive the best price for maintenance by consolidating contracts whenever possible.

MIS is responsible for notifying vendors to initiate and delete warranty coverage on applicable equipment and software.

Maintenance Contracts

1)   All maintenance contracts must be reviewed by the MIS Manager and the County Attorney.   MIS will keep a copy of all contracts on file.

Calls for Hardware Service

1)   All request for maintenance on the following equipment must be made by calling MIS at 488-85813.

   a) IBM mainframe and all connecting terminals, printers, modems and other peripherals;

   b) Pcs and Printers, monitors, disk drivers, modems and peripherals attached for use in conjunction with Pcs.

   c) DEC VAX;

   d) DEC networks, terminals printers;

   e) All modems connecting to Novell networks;

   f) CLSI mainframe and all connecting terminals, printers, modems, and other peripherals.

Although calls for service may be placed by the user's area for the above equipment, all maintenance contracts must be reviewed by the MIS Manager and a copy of all contracts kept on file at MIS.

1)   All maintenance calls will be logged at the original call site.   Please utilize the **Maintenance Call Log** form for this purpose.   These sheets should be kept in a notebook for ease of reference.

This log procedure will be followed for equipment handled by MIS and for maintenance handled by System Administrators.