INVENTORY MANAGEMENT SYSTEM USER'S MANUAL

DOCUMENT NUMBER
248069B

OCTOBER, 1978

Marketing Headquarters

Pertec Computer Corporation
Microsystems Division
20630 Nordhoff Street
Chatsworth, CA 91311
Phone (213) 998-1800
TWX (910) 494-2788

International Marketing Headquarters

Pertec Computer Corporation
Business Systems Division
17112 Armstrong Avenue
Irvine, CA 92714, USA
Phone (714) 540-8340
TWX (910) 595-1912

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B	10/78	Complete Revision

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INTRODUCTION

1 INTRODUCTION

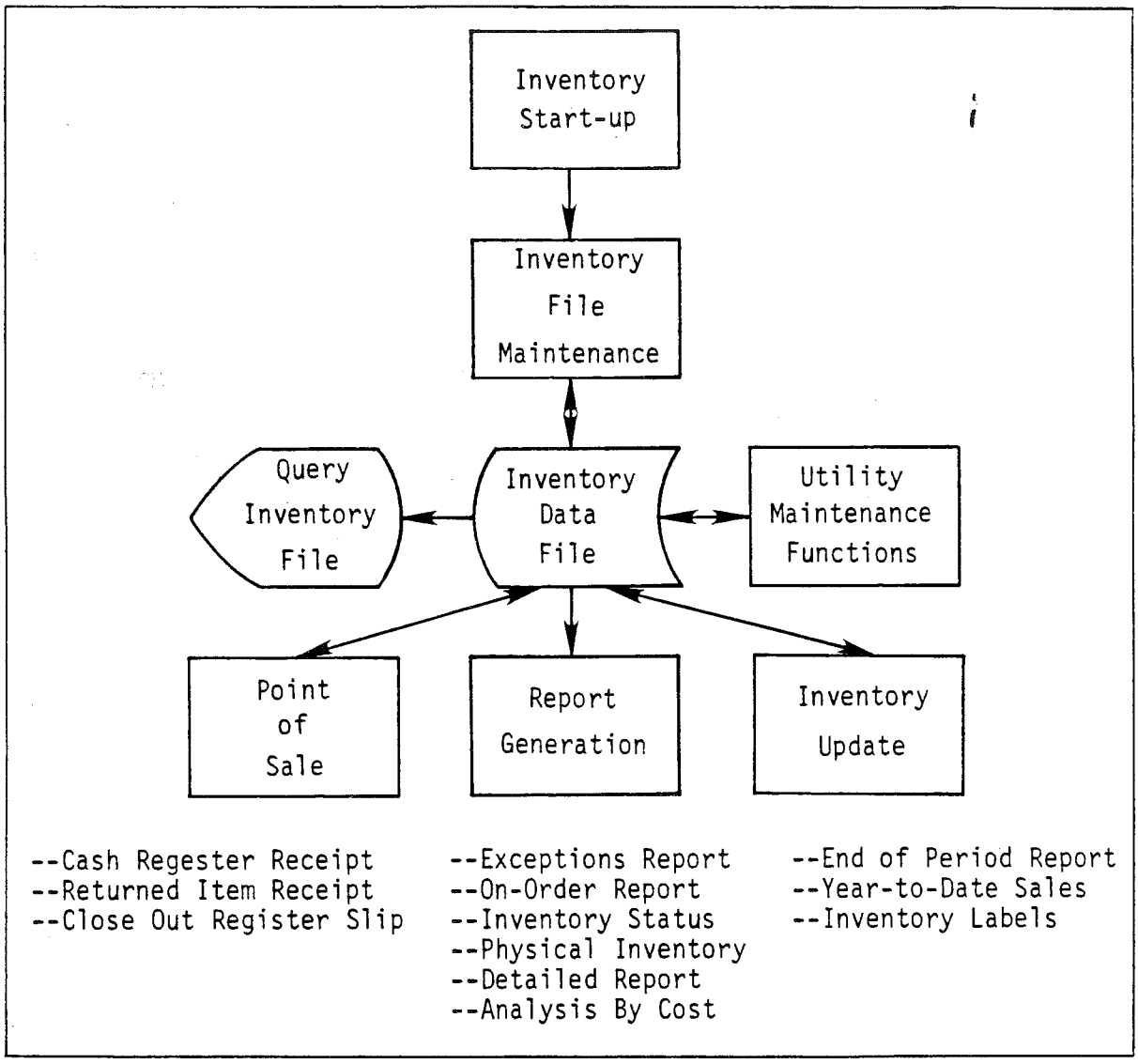
1-1 THE INVENTORY MANAGEMENT SYSTEM

The Inventory Management System is an integrated system of programs that provide comprehensive, up-to-date reports on the status of inventory to aid in the management and control of this crucial business factor. The system includes programs that generate Inventory status, Exceptions, Analysis By Cost, Physical Inventory, On-order and Detail reports.

The Inventory Management System provides up-to-date reports on all important aspects of inventory control, including the following:

- Inventory Status Report - shows the on-hand balance and a breakdown of activities leading up to this balance.
- Exception Report - shows conditions that need immediate attention, such as insufficient items on hand.
- Analysis By Cost - provides data on the various inventory items and their relative inventory cost.
- Physical Inventory - assists quick and accurate stock counting and reconciliation.
- On-Order Report - summarizes information on items on order, their cost and delivery dates.
- Detailed Inventory Report - prints all the information know about one or many stock diagrams.

The diagram on the following page shows the data flow in the Inventory Management System.



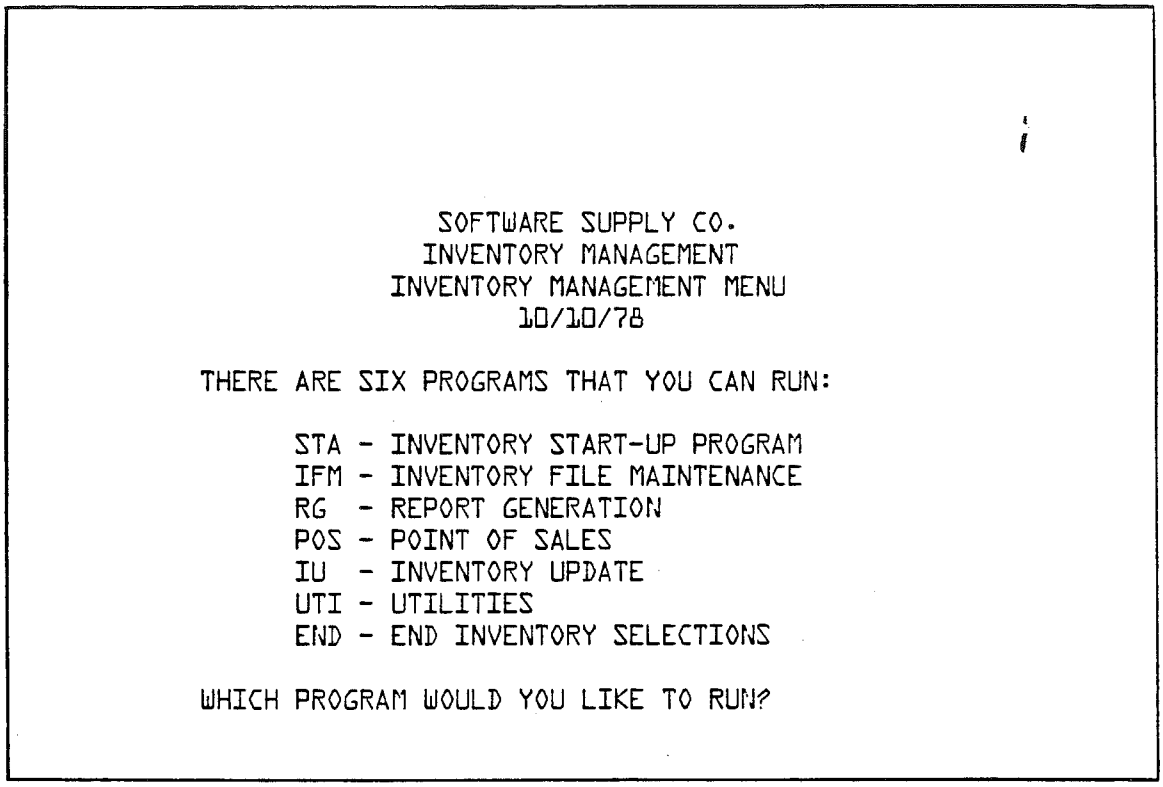
Inventory System Flow (with printouts)

1-2 INVENTORY MANAGEMENT SYSTEM MENUS

The Inventory Management System consists of a number of programs which collect inventory data, manage all the data files and print reports. The various functions are called into action by means of several "menus".

The many functions required to manage an inventory are performed by separate programs in the Inventory Management System. These programs are designed to work with each other and to be called into operation in order by means of a simple "menu" arrangement.

The first program the operator sees when the Inventory Management System is started is the Main Menu program. The program displays the six main divisions of the System (as shown on the following page) and asks the operator to choose one. At that point another menu may be displayed, showing the functions available in the chosen division. At any time in this process, the word END can be entered instead of another program name to return to the previous menu or to exit from the System. When a program is finished with its task, the menu that called it up is displayed automatically.



Inventory Management Main Menu

1-3 INVENTORY MANAGEMENT SYSTEM PROGRAMS

The Main Menu allows for selection of one of six divisions - Inventory Start-up, Inventory File Maintenance, Report Generation, Inventory Update, Point of Sales, and Utility Maintenance.

NOTE

The query file program QF is included in all divisions since it is used so often. With QF, information on any stock item can be retrieved from the Inventory File and displayed.

The Inventory Management System divisions, their subdivisions, and the section numbers where they are discussed in detail are as follows:

- Inventory Start-up Program - STA
  The Start-up program must be run when the system is initially started up or when the system is re-started. The Start-up program initializes printer and current date.

- Inventory File Maintenance Program - IFM
  The IFM program builds and maintains the Inventory File which is the main repository of inventory information in the system. The IFM menu contains the following functions:
  - ADD - Add an item to the file. See Section 3-1b.
  - DEL - Delete an item from the file. See Section 3-1d.
  - MOD - Modify an item in the file. See Section 3-1c.
  - QF - Query file, see NOTE above and Section 3-1e.
  - END - Close all files, return to Main Menu.

- Report Generation Program - RG
  The RG program generates the reports which are the main output of the Inventory Management System. Each different report is generated by a separate program as follows:
  - EX - Exceptions report. See Section 3-2b.
  - OO - On Order report. See Section 3-2c.
  - IS - Inventory Status report. See Section 3-2d.
  - PI - Physical inventory sheet. See Section 3-2e.
  - DI - Detailed inventory reports. See Section 3-2f.

- ABC - Analysis by cost. See Section 3-2g.
- QF - See Section 3-1e.
- END - End RG program, return to Main Menu.

- Inventory Update Program - IU

  The IU program allows batch updating of the Inventory File. The IU menu contains the following functions:

  - UP - Update inventory. See Section 3-4b.
  - INP - Initialize new period. See Section 3-4c.
  - YTD - Year to date sales. See Section 3-4d.
  - LAB - Label generator for inventory items. See Section. 3-4e.
  - QF - See Section 3-1e.
  - END - End IU program, return to Main Menu.

- Point of Sale Program - POS

  POS allows on-line inventory update concurrently with receipt generation and other point of sale transactions. The POS menu contains the following functions:

  - CR - Cash register. Section 3-3b.
  - RET - Returned items. Section 3-3c.
  - COR - Close out register. Section 3-3d.
  - QF - See Section 3-1e.
  - END - End POS program, return to Main Menu.

- **Utility Maintenance Programs - UTI**

  The Utility Maintenance programs perform various service functions for the System, but are not part of the Inventory Management System itself. They are run by the BASIC Operating System rather than the Main Menu. These programs include the following:

  - FORMAT - Prepare a new diskette or cartridge for use. Section 4-1g or 4-2a.
  - DCOPY - Copy information from one diskette or cartridge to another. Section 4-1d or 4-2c.
  - SYSGEN - Prepare system parameter file.
  - COPYR - Copy random files (floppy disk).
  - COPYS - Copy sequential files (floppy disk).
  - COPYH - Copy files (cartridge disk).
  - CREATE - Build new inventory data file.

SECTION 2
SYSTEM OPERATION

2 SYSTEM OPERATION

2-1 DISK ORGANIZATION

The Inventory Management System software consists of data files and a set of system programs contained on a floppy diskette or disk cartridge.

The drive containing the Inventory Management files and programs is specified during the execution of the SYSGEN (System Generation) program.

2 SYSTEM OPERATION

2-2 EQUIPMENT USE

a. Terminal: Entering Information

When information is to be entered into the Inventory Management System, the system first displays a prompting message. Then the operator types the required information on the terminal keyboard, followed by a carriage return.

Entering information into the Inventory Management System is a two-step procedure. First, the system displays a prompting message on the terminal. This message indicates what information is required by the system. A list of possible responses enclosed in parentheses is also printed with most of the prompting messages. Second, the operator types the requested information on the terminal keyboard. At the end of every entry, the RETURN key is typed to inform the system that the response is complete and processing may begin. In the following example, as in all others in this manual, the output from the system is shown in a SPECIAL TYPE FACE, while the user's response is shown in normal upper case type:

ACCOUNT ADD, CHANGE, DELETE, OR END (A,C,D OR END)?A<carriage return>

system prompting message

user's response

At any time during the entry of a response, the last character typed may be deleted from the line by typing RUBOUT (holding down the SHIFT key while typing RUBOUT, or on some terminals, DEL). Typing this character causes the last character in the line to be erased and the cursor to move back one space. Further characters may be entered normally.

CONTROL-X erases an entire line of imput. To erase a line, hold down the CONTROL (or CTRL) key and type X. The system prints %CAN at the end of the input line and repeats the prompting message. The response can then be entered normally. For example,

ACCOUNT ADD, CHANGE, DELETE, OR END (A,C,D OR END)?EN%CAN

user types CONTROL-X

ACCOUNT ADD, CHANGE, DELETE, OR END (A,C,D OR END)?C<carriage return>

b. Terminal: Response Types

Information typed into the system may be numbers, dates, or one of more characters. The response needed is specified in the prompting message.

When the system requires information to be entered, the information must be one of the three different types. In general, the information type which is expected by the system is specified in the context of the prompting message. For example, if the system asks for a number, then the information must be of number type. Similarly, if the system asks for a date, then the information must be of date type.

The three types of values which mya be entered into the system are numbers, dates and characters.

- NUMBER - A number is any number of blanks, followed optionally by an "+" or "-", followed by a string of one or more digits in which there may be an optional decimal point (.).
- DATE - Date information must be entered in the form MM/DD/YY. For example, February 19, 1948 would be represented by 2/19/48; October 5, 1976 would 10/5/76. Leading zeroes are not required.
- CHARACTERS - Character information is a sequence of alphanumeric characters.

Each of the types of values, except date values, has what is known as a default value. A default value is entered into the system when, in response to a prompting message, only the RETURN key is pressed. In most cases the default value for numeric information is zero (0), and the default value for character information is blank.

A sample of each of the three types of information follows:

INFORMATION TYPE	SAMPLES
Number	476 -372.10 + 42.1 372.6
Date	10/1/59 06/03/56 4/1/78
Character	This is character John P. Jones Department OFF

c. Terminal: The Help Feature

The Help feature is provided to aid the Inventory Management System user in answering the system prompts. If a prompt from the system is not understood, a question mark may be typed and the system prints an explanatory message.

To aid the Inventory Management System user in understanding exactly what to enter when answering a particular prompt, the Inventory Management System has what is referred to as a Help feature. If, at any time, it is not understood how to answer a prompt from the system, a question mark (?) may be entered. The system will then display an explanation of the information that the prompt is seeking. After displaying this explanation, which may be several lines long, the prompt is repeated. If further explanation of the prompt is still required, this manual should be consulted.

The following is an example of the Help feature:

```
     WHICH PROGRAM WOULD YOU LIKE TO RUN {IFM, RG, IU, POS}? ?

:::  PLEASE ENTER THE TWO OR THREE CHARACTER NAME CORRESPONDING TO THE SYSTEM
:::  YOU WANT TO RUN.  EACH SYSTEM CAN PERFORM THE FOLLOWING FUNCTIONS:
:::
:::     IFM  -  INVENTORY FILE MAINTENANCE
:::          QF  -  QUERY INVENTORY FILE       ADD  -  ADD ITEM TO FILE
:::          DEL -  DELETE ITEM FROM FILE      MOD  -  MODIFY ITEM IN FILE
:::
:::     RG   -  REPORT GENERATION
:::          QF  -  QUERY INVENTORY FILE       EX   -  EXCEPTION REPORT
:::          OO  -  ON ORDER REPORT            IS   -  INVENTORY STATUS
:::          PI  -  PHYSICAL INVENTORY         DI   -  DETAILED INVENTORY
:::          ABC -  ANALYSIS BY COST
:::
 :::     IU   -  INVENTORY UPDATE
:::          QF  -  QUERY INVENTORY FILE       UP   -  UPDATE INVENTORY
:::          INP -  INITIALIZE NEW PERIOD      YTD  -  YEAR-TO-DATE SALES
:::          LAB -  LABELS FOR ITEMS
:::
:::     POS  -  POINT OF SALES
:::          QF  -  QUERY INVENTORY FILE       CR   -  CASH REGISTER
:::          RET -  RETURNED ITEM {S}          COR  -  CLOSE OUT REGISTER
:::
:::
         WHICH PROGRAM WOULD YOU LIKE TO RUN {IFM, RG, POS, OR IU}?
```

d. Line Printer: Forms and Set-up

The line printer is used to provide hard copy of Inventory Management reports, statements, and invoices.

For instructions on loading paper in the line printer, consult the system user's manual.

For best results, use pin-feed (or tractor-feed) paper in the Q70 and C700 printers. Pin-feed paper is continuous, fan-fold paper that has a strip of sprocket holes running down each side of the paper. These holes engage pins in the tractor mechanism of the printer and provide positive paper alignments and feeding. Most pin-feed paper is perforated, so that the holes may be removed from the finished reports and listings.

2-3 SYSTEM START-UP

The Inventory Management System start-up procedure includes bringing up BASIC, running the proper menus, and running the Start-up program. First time start-up also includes formatting disks, creating files, and running SYSGEN.

The Inventory Management System start-up procedure reads the system programs from the disks where they are stored, requests certain information (such as today's date, passwords, etc.) to be used by the system and, the first time the system is started, sets certain system parameters for use in a particular computer configuration.

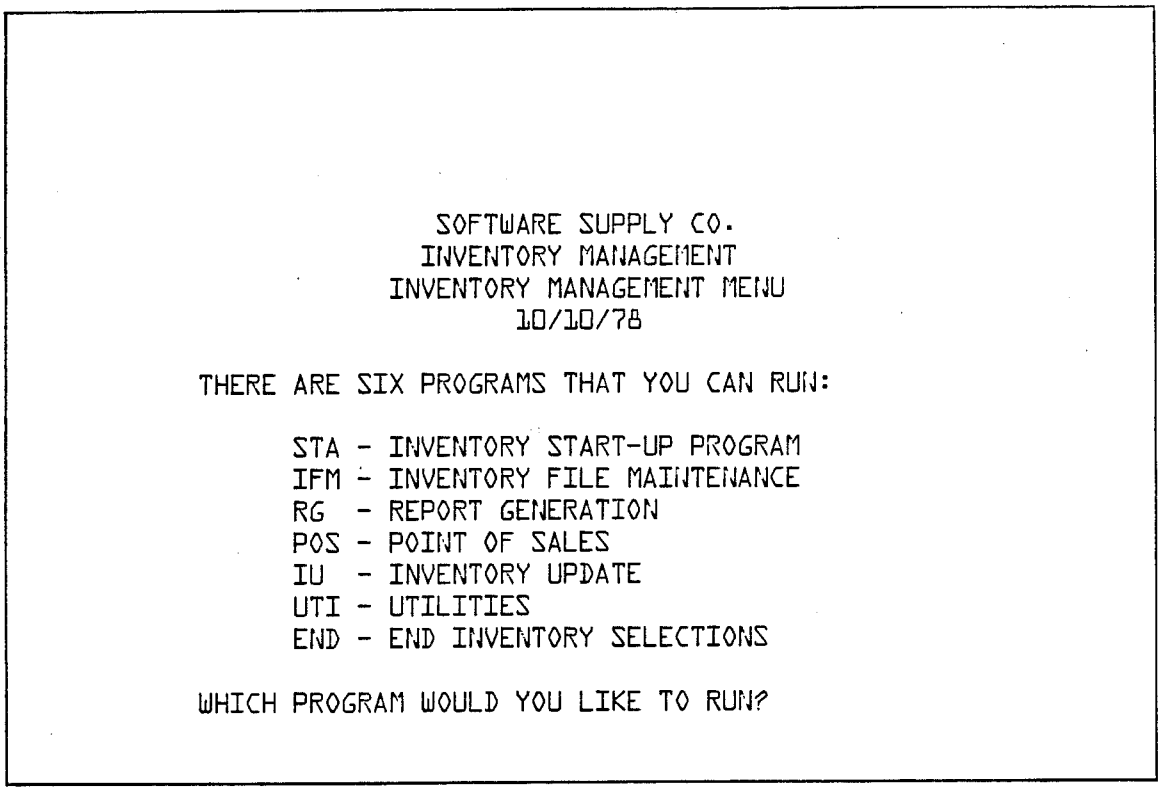
The start-up procedure must be performed each time the computer is turned on. This is because all information on the state of the computer system is lost when the computer's power is turned off. The system must also be restarted when a severe error or other exceptional condition causes an exit from the Inventory Management System.

To start the Inventory Management System, use the following procedure:

STEP	OPERATION
(1)	Turn the computer system's power on according to the instructions in the system operator's manual.
(2)	Bring up the BASIC Operating System according to the instructions in Section 2-3a.
(3)	Type the following command to display the Inventory Management Main Menu: RUN"IM MENU"
(4)	If this is the first time this system has been run on this computer, or if the computer's hardware configuration has been changed since the last time this system was run, type UTI when the Main Menu asks which program to run. For more information on the system generation procedure and first time start-up, proceed to Section 2-3d.

When a selection is made from the Inventory Management System Menu, the system automatically runs the Inventory Start-up Program, if it has not already been run. For more information on the Inventory Start-Up Program, see Section 2-3c.

An example of the Inventory Management Main Menu follows.



Inventory Management Main Menu

2 SYSTEM OPERATION

2-3 SYSTEM START-UP

a. Bringing Up the BASIC Operating System

The first step in bringing the Inventory Management System into operation is to bring up the BASIC Operating System. This is done by turning the computer power on, placing the disk containing BASIC into the drive and loading BASIC.

The BASIC Operating System is a large program that includes the BASIC language (in which the Inventory Management System is written), error detection, flagging routines, input and output procedures and disk storage routines. It provides the facilities through which the Inventory Management System can control the computer system.

Each time the computer power is turned on, the BASIC Operating System must be loaded again. The procedure for loading BASIC in floppy disk systems is shown below, while the procedure for cartridge disk system is shown on the opposite page.

FLOPPY DISK SYSTEMS

Step (1) Turn on the computer power according to instructions in the system user's manual.

Step (2) Place the diskette containing the BASIC Operating System in Drive 0.

Step (3) Load BASIC according to the instructions in the system user's manual.

Step (4) The terminal displays a series of questions to set system parameters. Type the RETURN key after each entry to pose the next question. Answer these questions as follows:

```
MEMORY SIZE? 59000
LINEPRINTER? 0 FOR 070 OR C FOR C700
HIGHEST DISK NUMBER? 1
HOW MANY FILES? 5
HOW MANY RANDOM FILES? 5
```

Type the RETURN key after each entry to pose the next question. When finished, BASIC will print OK.

Step (5) Remove the BASIC diskette from Drive 0. Insert the Inventory Management System diskette in Drive 0 and insert the data diskette in Drive 1. Type the following command:

```
MOUNT
```

Step (6) When the MOUNT command action is complete, BASIC prints OK on the terminal. Whenever BASIC is awaiting a command, it prints OK to indicate that the BASIC Operating System is in control. To load and run the system, type the following command:

```
RUN" IM MENU"
```

This causes the Inventory Management System to run the Inventory Start-up program automatically and to display the Inventory Management Menu on the terminal. The Inventory Start-up program is explained in Section 2-3c.

CARTRIDGE DISK SYSTEMS

Step (1) Turn on the computer, disk drive and controller power according to the directions in the system user's manual.

Step (2) Place the System Disk Cartridge in drive unit 1.

Step (3) Initialize the controller according to the instructions in the system user's manual.

Step (4) Load BASIC according to the instructions in the system user's manual.

Step (5) BASIC displays a series of questions on the terminal and waits for operator input to set some Operating System parameters. After each entry, type the RETURN key to pose the next question. Answer these questions as follows:

```
MEMORY SIZE? 59000
LINEPRINTER? Q FOR Q70 OR C FOR C700
HIGHEST DISK NUMBER? 1
HOW MANY FILES? 5
CURRENT DAY? (Enter two digit day number)
CURRENT MONTH? (Enter two digit month number)
CURRENT YEAR? (Enter two digit year number)
```

Step (6) When the questions have been answered, BASIC prints OK. BASIC prints OK whenever it is awaiting a command. At this point type

```
MOUNT n
```

where n is the disk drive number. If n is blank, all disks are mounted starting with highest numbered drive.

Step (7) When BASIC prints OK again, run the Inventory Management Main Menu by typing:

```
RUN"IM MENU"
```

Running the Inventory Management System Menu automatically initiates the Inventory Start-up program. For more information on the Inventory Start-up program, see Section 2-3c.

b. Start-up Procedures

The Inventory Management Main Menu program is used to select the Inventory Management submenu and utility programs.

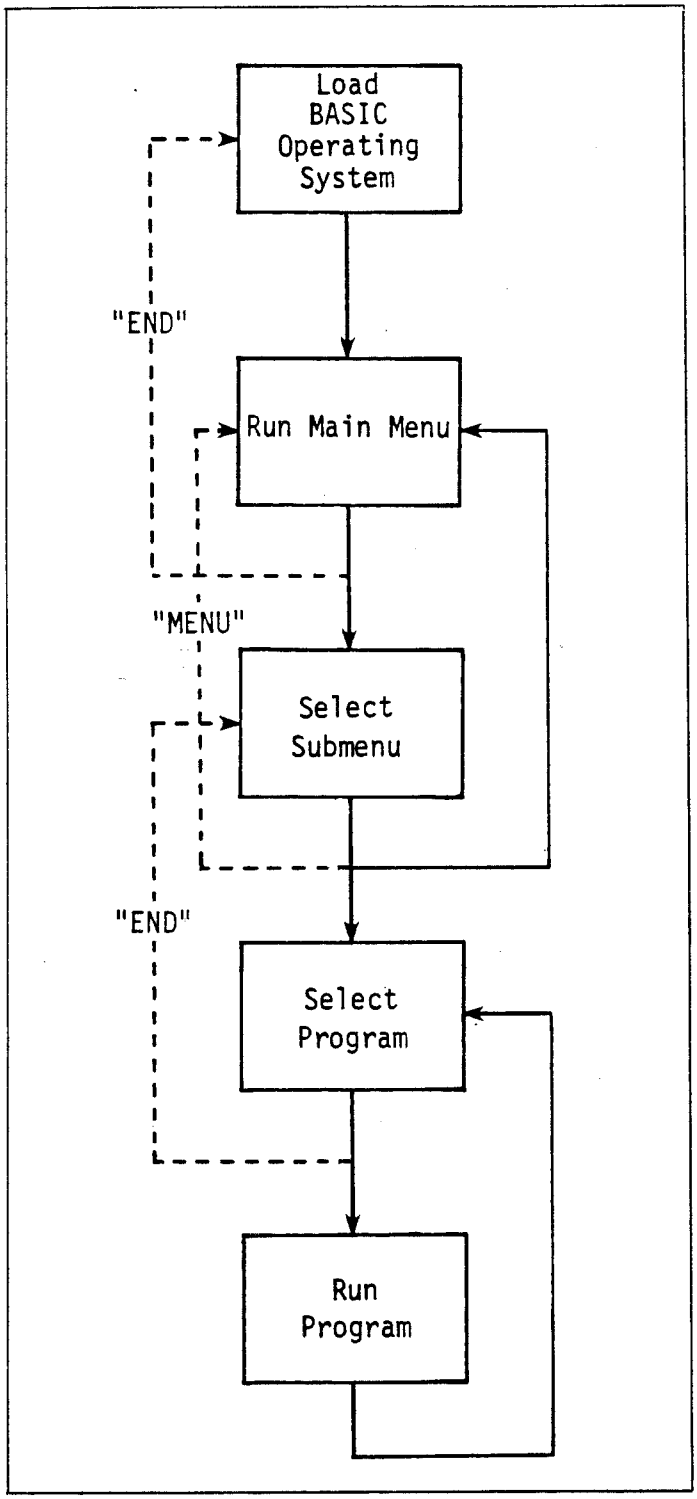
All submenu and utility programs in the Inventory Management System are selected for execution through the Main Menu Selection program. To utilize the Menu feature, the Main Menu Selection program must be loaded and started up, using the procedure described in Section 2-3a.

At the beginning of each day, or if for some reason the system has to be completely restarted during the day, certain internal initialization functions must take place. These functions are performed by selecting the Inventory Start-up (STA) program from the Menu. If the computer has been turned off, the STA program will be automatically called from the IM Menu. Running the STA program is described further in Section 2-3c.

Execution procedures for individual programs that may be selected from the Main IM Menu are described in Section 3.

In addition to the Utility Maintenance Menu (UTI) and the Start-up program, the Report Generation (RG), Point of Sales, Inventory File Maintenance, and Inventory Update submenus, may be selected from the Main IM Menu. The Utility Menu programs are described in detail in Section 4, and the Submenu programs are described in Section 3. Return from the UTILITY Menu to the Main IM Menu programs is done by selecting the MENU function, and return from the submenu programs is done by selecting END.

A flow diagram of the system program selection operation follows.



System Program Selection Flowchart

c. The Inventory Start-up (STA) Program

The Inventory Start-up (STA) program is used to perform certain system functions that are necessary before the Inventory Management System may be used. The Start-up program must be executed when the Inventory Management System is initially started up, or if for some reason, the system must be restarted.

The Start-up program may be run in either of two ways:

1. If the Inventory Management System must be initialized and the computer has not been powered off, the Start-up program may be started by selecting STA from the main IM Menu.

2. If the computer has been powered off, the Inventory Management System will automatically run the START program after the command RUN "IM MENU" has been typed during system start-up.

In either case, the START program first asks for the password with the prompt:

```
WHAT IS THE PASSWORD FOR THIS DISK?
```

Three chances are then given to key in the correct password for the system disk, as defined during system generation. (The password is initially set to IMTEST). The system will then display:

```
ONE MOMENT FOR INITIALIZATION ......
```

followed by a short pause while certain internal data is transferred from the disk into the computer's memory. Next, the prompt:

```
ENTER TODAY'S DATE (MUST BE OF /MM/DD/YY FORMAT) :
```

will appear. The date entered here is stored for later program access.

After the date is entered, the main IM Menu reappears and normal processing may then begin.

The following is an example of the main Inventory Management Menu:

c. Disk Initialization

Every disk used with the Inventory Management System must be formatted before information may be stored on it. Floppy disk formatting is performed by the utility program FORMAT. Disk cartridges are formatted by DCOPY. After formatting, the disk is prepared for use by the SYSGEN and CREATE utility programs.

The Inventory Management System is supplied with disks that have been formatted and are ready to use. If additional disks are to be used, they must be formatted before any data can be stored on them. To format a floppy diskette, select the utility program FORMAT from the Utility Menu. The FORMAT program is quite lengthy to perform (taking around 20 to 30 minutes for a single diskette) so a good policy is to format several disks at one time. The FORMAT program is described further in Section 4-1a.

To format a disk cartridge, run utility program DCOPY, selecting the format option. DCOPY is described in Section 4-2c.

After a data disk is formatted, certain files must be created on disk. The first step in this process is to transfer the system generation parameters (such as company name, password, etc.) onto the disk. This is done by using the SYSGEN program, selected from the Utility Menu, and described in Section 4-3a. The second step is to write the data file 'headers' onto the disk. The program that performs the data file creation function is called CREATE and is also selected from the Utility Menu. For a detailed description of the CREATE program, see Section 4-3b.

e. System Generation (SYSGEN)

System generation is the process of tailoring the Inventory Management System parameters and disks to a user's individual requirements. After the system is generated, it can be routinely started up and utilized.

The System Generation program allows the Inventory Management System to be customized to fit a particular hardware configuration. The Inventory Management System is supplied with a set of system parameters which can be changed by means of the SYSGEN program, chosen from the Utility Menu. A detailed description of the SYSGEN program is contained in Section 4-3a. The SYSGEN program is needed when the configuration of the Inventory Management System is to be changed.

The System Generation procedures for floppy and cartridge disks are provided in Section 2-3f.

An example of the System Generation dialogue follows:

```
*** PROGRAM TO INITIALIZE THE $SYSTEM PARAMETERS ***

*** NOTE: THE DEFAULT VALUE IS THE VALUE ASSUMED IF YOU
          HIT 'RETURN' WITH NO ENTRY FOR THAT ITEM ***

---------ITEM---------   ----CURRENT (DEFAULT)----   -------YOUR ENTRY-------
SYSTEM NAME              INVENTORY MANAGEMENT       INVENTORY MANAGEMENT
SYSTEM PASSWORD          IMTEST                     IMTEST
DISKETTE TITLE/VERSION   A005.0/BETA                A005.0/BETA
CREATION DATE            01/10/78                   01/10/78
LAST ACCESS DATE         01/10/78                   01/10/78
TERMINAL STATUS PORT     16                         16
TERMINAL SENSE SWITCH    1                          1
SCREEN CLEAR CODE(S)     027069026126028            027069026126028
TERMINAL WIDTH           80                         80
TERMINAL # OF NULLS      0                          0
PRINTER TYPE CODE        Q                          Q
PRINTER STATUS PORT      18                         18
PRINTER SENSE SWITCH     1                          1
TOP OF FORM CODE(S)      048                        048
PRINTER WIDTH            80                         80
PRINTER NULLS            0                          0
NUMBER SYSTEM DRIVES     2                          2
'#INVFILE' DRIVE         0                          0
BASE MEMORY ADDRESSES    &HE678:&H52F1              &HE678:&H52F1
DATA FILE PASSWORD
DISK TYPE CODE (H OR F)  H                          H
COMPANY NAME             SOFTWARE SUPPLY CO.        SOFTWARE SUPPLY CO.
ADDRESS 1 OF 2           20630 NORDOFF ST.          20630 NORDOFF ST.
ADDRESS 2 OF 2           CHATSWORTH, CA. 90290      CHATSWORTH, CA. 90290
```

System Generation Dialog

f. System Generation Procedures

The system generation procedures for floppy and cartridge disks are explained below.

STEP	PROCEDURE
(1)	a. One or more diskettes (floppy disks) must be formatted using the FORMAT utility program before the data files can be read from or written to it. b. A new disk cartridge (cartridge disk) must be formatted using the format option of the DCOPY utility program explained in Section 4-2c (the FORMAT utility program for the cartridge disk is provided to erase all information on a disk cartridge that has already been used.
(2)	Using the SYSGEN utility program, initialize the systems diskette or disk cartridge with the disk name, the company (or department) whose data resides on this disk, the date of creation, password, and other pertinent information. (This information is prompted from the operator and is stored in a sequential file called #INV.SYS.)
(3)	Using the CREATE utility program, set up the required data file header information for the appropriate data files to be stored on the diskette or disk cartridge. The files must be structured via the CREATE utility program for use by the ISAM file management routines. The CREATE program sets up the Inventory File.
(4)	If the diskette or disk cartridge being prepared is to reside on Drive 0, the Help file (#INVHELP) must be transferred onto this new disk. This transfer of #INVHELP may be accomplished be either the COPYR (floppy disk) or COPYH (cartridge disk) utility function, depending on whether the user has a floppy disk or disk cartridge system.
(5)	Using the Inventory File Maintenance (IFM) programs, set up and verify the Inventory File.
(6)	When the Inventory File is correct, label the disk Inventory File and date.
(7)	Duplicate this entire disk for backup, using the DCOPY utility program and store in a safe place.

g. The Inventory Management System Test Data Files

The Inventory Management System program disk comes with a sample data base completely generated that may be used for testing and demonstration purposes. Listings of this data base and reports generated from it may be found in Section 5.

The Inventory Management System is supplied with a file containing data for a hypothetical company. The data may be used for testing and demonstration purposes, so if possible, they should be retained for future use.

If floppy disk systems, the data files may be copied onto another diskette by means of the COPYR program. Data files may be transferred to another cartridge disk using the DCOPY porgram.

In cartridge disk systems, or floppy disk systems where no extra diskette or cartridge is available, the files may be renamed by the following BASIC commands:

```
NAME "INVFILE" AS "TESTINV"
```

In both systems, use the BASIC KILL command to delete the old test data files and then create new data file headers with the CREATE program.

For a complete description of the NAME and KILL commands, see the BASIC Reference Manual.

h. Periodic File Backup

At regular intervals, duplicates should be made of all disks in the Inventory Management System.

Since power failure or mechanical problems could cause data stored on a diskette or cartridge disk to be lost, establish a regular system of backing up disks. Intervals between copies will depend upon the volume and mode of business, but make sure the files are kept current so that the system may be restored with a minimum of difficulty.

To make a backup diskette for a floppy disk system, insert the diskette to be copied into one drive and blank diskette (formatted or unformatted) into another. Then use DCOPY to copy the contents of the original onto the backup. Label the backup and store it in a safe place.

To backup a cartridge disk system, use the DCOPY utility program to duplicate the cartridge onto the bottom platter (disk 1). Then remove the cartridge, mount a cartridge and run DCOPY again to copy the files back to the top platter (disk 0). Now either of the cartridges may be used for backup and the other as the system disk.

For more information on DCOPY, see Section 4-2d for floppy disk systems and 4-3c for cartridge disk systems.

SECTION 3

INVENTORY MANAGEMENT MENU PROGRAMS

3 INVENTORY MANAGEMENT MENU PROGRAMS

3-1 INVENTORY FILE MAINTENANCE PROGRAM - IFM

The Inventory File Maintenance program (IFM) performs the functions of adding items to the Inventory File, modifying information on those items and deleting items from the File.

Choosing IFM from the Main Menu causes a second menu (as shown below) to be displayed, listing the functions of the Inventory File Maintenance program. One of these functions may be selected by typing its two or three letter code after the menu is displayed. The detailed procedure for running IFM is shown on the facing page.

When each function is finished, the system automatically returns to the IFM Menu. To return to the Main Menu, type 'END' when the IFM Menu asks for a selection.

The following Section (3-1a) describes the structure of the Inventory File. The next four Sections, (3-1b - 3-1e) describe the three Inventory File Maintenance functions, and the Query File function (QF) which may be selected from any of the subsidiary menus in the Inventory Management System.

```
                    SOFTWARE SUPPLY CO.
                  INVENTORY MANAGEMENT
               INVENTORY FILE MAINTENANCE
                       10/10/78

     THERE ARE FIVE INVENTORY FILE MAINTENANCE FUNCTIONS:

                  QF  -  QUERY INVENTORY FILE
                  ADD -  ADD AN ITEM TO THE FILE
                  DEL -  DELETE AN ITEM FROM THE FILE
                  MOD -  MODIFY THE FILE
                  END -  END IFM, CLOSE FILES, LOAD MENU

     WHICH FUNCTION DO YOU WISH TO PERFORM?  {QF,ADD,DEL,MOD,END} ?
```

Step (1) Prompt/Display

{Main Menu Display}

Explanation

To run the Inventory File Management program, Type 'IFM'.

Step (2) Prompt/Display

{IFM Menu}

Explanation

Type the two or three letter code corresponding with the function to be performed on the Inventory File.

3 INVENTORY MANAGEMENT MENU PROGRAMS

3-1 INVENTORY FILE MANAGEMENT PROGRAM - IFM

a. Inventory File Structure

Each Inventory File item consists of 23 fields containing the Inventory Management data on that item. The item is referred to by a key; the fields are referred to by number.

Each item in the company's inventory is represented in the Inventory File by an item record. The item record contains the information on the inventory item that is required by the Inventory Management System. This information includes cost, vendor, location, etc. The record also includes a detailed description and a key by which the item is identified.

The structure of the Inventory File item record is shown on the facing page. When the ADD function is chosen from the IFM Menu, the contents of each field are requested from the operator in the order in which they are shown in the chart. The DEL function deletes the whole record whose key is presented. The MOD function can change specific fields in an item record, or the same field in many records.

If a field in an item record is not applicable, typing the RETURN key enters the default value into that field. The default values vary according to the field and are shown in the far right-hand column on the facing page.

INVENTORY FILE ITEM RECORD

Field	Description	Explanation	Default
1	Item Description	Detailed name of item	Spaces
2	Item Units	Units in which the item is accounted (ea., lbs., kg., etc)	Spaces
3	Ave. Cost	Seller's cost per unit	$0.00
4.	Cur. Price	Current price of item to buyer	$0.00
5.	Year-to-Date Sales	Dollar value of items sold this year	$0.00
6.	Previous Balance	Number in stock at end of last accounting period	0
7.	Date of Prev. Balance	Date when last period ended	
8.	Number of Sales	Number of units sold since last period ended	0
9	Number of Returns	Number of units returned since last period ended	0
10	Number Received	Number of units received from vendor since last period ended	0
11	Number on Order	Number of units still on order	0
12	Date Order Placed	Date on last order	
13	Reorder Level	Number of items at which to order more stock	0
14	Reorder Quantity	Number of units to order for stock	0
15	Lead Time (days)	Time from order to delivery	0
16	Min. Balance	Minimum number of units in stock	0
17	Max. Balance	Maximum number of units in stock	0
18	Date of Last Sale		
19	Date of Last Physical Inventory		
20	Year-to-Date Sold	Number of units sold this year	0
21	Vendor ID	Abbreviated name of vendor who sold this item (8 characters)	Spaces
22	Vendor Item Number	Vendor's stock number	Spaces
23	Location of Item	Place where item is stored in stock	Spaces

b. Adding an Item to the File - ADD

The ADD function requests the values of the item record fields and writes the new record into the Inventory File.

To use the ADD function to add a new item record to the Inventory File, type

ADD

after the IFM program displays the IFM Menu.

The ADD function displays the number and description of each field of the item record (see Section 3-1a for more information). The word in parentheses is the type of response required from the operator (number, characters, etc.). After each field entry, type 'RETURN' to have the system request the next field.

After all fields of one record have been entered, ADD gives the opportunity to correct any field or fields in the record.

The step by step procedure for adding an item record to the Inventory File follows.

Step (1) Prompt/Display

INVENTORY FILE MAINTENANCE

ADD AN ITEM TO THE FILE

WHAT IS THE PRODUCT CODE?

Explanation

Enter the code for the item record to be entered. The code can be any string of up to 16 letters, numbers or special characters.

Step (2) Prompt/Display

PLEASE ENTER THE DATA FOR EACH FIELD SHOWN. IF THE FIELD IS UNKNOWN OR NOT APPLICABLE, THEN PRESS THE 'RETURN' KEY

{Field descriptor}?

Explanation

Enter the values for each of the fields as shown in Section 3-1a.

Step (3) Prompt/Display

THE FOLLOWING IS THE INFORMATION FOR THIS ITEM

{Item record display}

Explanation

When all of the fields have been determined, IFM displays the record for checking.

Step (4) Prompt/Display

WOULD YOU LIKE TO MAKE ANY CHANGES {Y,N}?

Explanation

Enter 'Y' if there needs to be any changes in the record and proceed to the next step. If the record is correct as it stands, enter 'N' and proceed to step (7).

Step (5) Prompt/Display

WHAT IS THE NUMBER OF THE FIELD TO BE CHANGED?

Explanation

Enter the field number for the field whose value is to be changed.

Step (6) Prompt/Display

{Field descriptor}?

Explanation

IFM displays the field number, description and data type. Enter the correct value and return to step (3).

Step (7) Prompt/Display

DO YOU WISH TO ADD ANOTHER RECORD {Y,N}?

Explanation

To add another record, type 'Y' and return to step (1). To terminate the ADD function type 'N' to return to the IFM Menu.

c. Modify an Item in the File - MOD
Steps 1 through 5

The MOD function can modify one or more fields in a single record, or the same field in more than one record.

The MOD function of the IFM program allows the information in existing Inventory File item records to be changed without affecting the rest of the file.

Two modes are available. In one mode, one or more fields in a single item record may be changed. In the other mode, the same field in more than one record can be changed. The two modes can be intermixed.

For example, if an order has been placed with a new vendor who offers a better price on an existing stock item, several fields in that item's Inventory File record would have to be changed. In this case, the first mode would be used.

On the other hand, on the day after physical inventory, only the last physical inventory date and the previous balance fields may have to be changed, but the two fields would have to be changed for every item record in the file. In this case, the second mode would save time and effort.

To Run MOD, type

MOD

after the IFM Menu has been displayed. The detailed procedure for MOD follows.

Step (1) Prompt/Display

```
THERE ARE TWO TYPES OF MODIFICATIONS THAT CAN BE MADE.
     1.  MODIFY FIELDS WITHIN A PARTICULAR ITEM
     2.  MODIFY ITEMS FOR A PARTICULAR FIELD
WHICH MODIFICATION DO YOU WISH TO MAKE (1 OR 2)?
```

Explanation

Enter the number of the mode to be used. For mode 1, proceed to step (2). For mode 2, proceed to step (6).

Step (2) Prompt/Display

MODIFYING FIELDS WIHIN A PARTICULAR ITEM

WHAT IS THE PRODUCT CODE?

Explanation

Enter the code for the item to be changed.

Step (3) Prompt/Display

THE FOLLOWING IS THE INFORMATION FOR ITEM {code}

{Display of item record fields and values}

WOULD YOU LIKE TO MAKE ANY CHANGES {Y,N}?

Explanation

IFM displays the current contents of the requested item record. To change any of the fields, type 'Y' and proceed to the next step. To leave this item record unchanged, type 'N' and proceed to step (10).

Step (4) Prompt/Display

WHAT IS THE NUMBER OF THE FIELD TO BE CHANGED?

Explanation

Enter the desired field number.

Step (5) Prompt/Display

{Field descriptor}?

Explanation

Enter the modified value of the chosen field. Return to step (3).

c. Modify an Item in the File - MOD
Steps 6 through 10

The following procedure is used to change a particular field in the item record.

Step (6) Prompt/Display

MODIFYING ITEMS FOR A PARTICULAR FIELD

THE FOLLOWING ARE THE FIELDS WHICH CAN BE CHANGED

{display of field descriptors}

WHAT IS THE NUMBER OF THE FIELD TO BE CHANGED?

Explanation

If mode 2 is chosen, IFM prints a list of the fields of the item record and asks which of them is to be changed. (For more information on the item record fields, see Section 3-1a).

Step (7) Prompt/Display

ITEM CODE — {code 1}

{field descriptor} {value}

DO YOU WISH TO CHANGE THIS VALUE {Y,N}?

Explanation

IFM displays the field descriptor and the value of that field for the first item record in the Inventory File. It asks whether this value is to be changed. To change the value, type 'Y' and proceed to the next step. To leave the value unchanged, type 'N' and proceed to step (9).

Step (8) Prompt/Display

WHAT IS THE VALUE FOR THE FIELD

{Field descriptor}?

Explanation

Enter the new value after the question mark. Proceed to the next step.

Step (9) Prompt/Display

SHOULD THIS FIELD CONTINUE TO BE EDITED {Y,N}?

Explanation

To modify this field in the next item record in the file, type 'Y' and return to step (7) with the next record. To terminate this modification mode, type 'N' and proceed to next step.

Step (10) Prompt/Display

DO YOU WISH TO CONTINUE MODIFYING THE FILE {Y,N}?

Explanation

To continue file modification, type 'Y' and return to step (1). To terminate the MOD function type 'N'.

d. Delete an Item from the File - DEL

The DEL function deletes an entire item record from the Inventory File

To run the DEL function, type

DEL

after the IFM Menu is displayed.

Step (1) Prompt/Display

DELETE AN ITEM FROM THE FILE

WHAT IS THE CODE OF THE ITEM TO BE DELETED?

Explanation

Enter the item key for the record to be deleted.

Step (2) Prompt/Display

ARE YOU SURE YOU WANT TO DELETE ITEM {code} {Y, N}?

Explanation

Type 'Y' to delete the item record. Type 'N' to terminate the DEL function and return to the IFM Menu.

Step (3) Prompt/Display

DO YOU WISH TO DELETE ANY OTHER ITEMS {Y,N}?

Explanation

Type 'Y' to delete another item and return to step (1). Otherwise, type 'N' to return to the IFM Menu.

e. Query Inventory File - QF

The Query Inventory File program is available from each of the subsidiary menus. It allows the contents of any item record to be displayed on the terminal.

The QF program can retrieve and display and Inventory File item record by key. Since it is used so often, it is available in each of the subsidiary menus.

To run QF, type

```
QF
```

after the IFM, RG, IU, POS or UTI Menu is displayed.

Step (1) Prompt/Display

WHAT IS THE CODE OF THE ITEM TO BE QUIRIED?

Explanation

Enter the code of the desired item.

Step (2) Prompt/Display

{Display of item record}

Explanation

The item record is displayed.

Step (3) Prompt/Display

DO YOU WISH TO QUERY ANOTHER ITEM {Y,N}?

Explanation

To display another item record, type 'Y' and return to step (1). To terminate the QF function, type 'N' and return to the calling menu.

3 INVENTORY MANAGEMENT MENU PROGRAMS

3-2 REPORT GENERATION - RG

The Report Generation program (RG) compiles and prints the reports that are the primary output of the Inventory Management System. These reports include exceptions reports, on-order reports, inventory status reports, physical inventory sheets, detailed inventory reports and analysis by cost.

The Report Generation (RG) program reports present the data stored in the Inventory File in understandable form, useful for management decisions. The reports can be printed on paper for permanence or displayed on a terminal for fast response. The ease of generating a report allows management to have up-to-the-minute inventory control information at all times.

When the RG program is run, it displays a menu of the available reports. Once on of the reports is chosen and directed either to the printer or to the terminal, report generation is completely automatic.

The RG Menu is shown below. The detailed procedure for running the RG program is shown on the following page.

```
                    SOFTWARE SUPPLY CO.
                  INVENTORY MANAGEMENT
                    REPORT GENERATION
                        10/10/78

        THERE ARE EIGHT REPORT FUNCTIONS THAT CAN BE CHOSEN:

                  QF   -  QUERY INVENTORY FILE
                  EX   -  EXCEPTIONS REPORT
                  OO   -  ON ORDER REPORT
                  IS   -  INVENTORY STATUS
                  PI   -  PHYSICAL INVENTORY
                  DI   -  DETAILED INVENTORY
                  ABC  -  ANALYSIS BY COST
                  END  -  END RG, RETURN TO MENU

  WHICH REPORT DO YOU WISH TO OBTAIN {QF,EX,OO,IS,PI,DI,ABC,END}?
```

Step (1) Prompt/Display

{Main menu display}

Explanation

Enter RG to run the Report Generation Program.

Step (2) Prompt/Display

{RG Menu}

Explanation

Select the desired report function and type its two or three letter code.

Step (3) Prompt/Display

{Report Generation function}

Explanation

Follow the instructions given in the following six sections for compiling and printing reports.

Step (4) Prompt/Display

{RG Menu}

Explanation

When each function finishes, it returns to the RG Menu. At this point, another report may be chosen, or the RF program may be terminated by typing 'END'.

3-2 REPORT GENERATION PROGRAM - RG

a. Query File Function - QF

Instructions for using the QF function are provided in Section 3-1e.

b. Exceptions Report - EX

The Exceptions Report pin-points inventory conditions that require immediate attention. These include low stock levels (below minimum or completely depleted) and items on-order (normal or past-due).

The Exceptions Report (EX) is a listing of all items which exhibit exceptional conditions. The report prints a "status remark" for each exceptional item as follows:

- M. LEVEL - stock level is below minimum level for this item.
- DEPLETED - this item is out of stock.
- REORDER - this item is on order.
- PAST DUE - delivery on this reordered item is past due.

The Exception Report also includes reorder levels, order quantities, minimum balances and vendors for each item.

The procedure for running EX is shown below. A sample Exceptions Report is provided in Section 5-1.

Step (1) Prompt/Display

{RG Menu}

Explanation

Type EX after the menu is printed.

Step (2) Prompt/Display

SHOULD THE OUTPUT GO TO THER. TERMINAL OR TO THE PRINTER {T,P}?

Explanation

For a hard copy report, position the printer paper so that the top of a page is even with the print head and type 'P'. For a terminal display, type 'T'. Periodically, the display stops and the message

READY {Y,N}?

is printed. This allows time to examine the display. Type 'Y' to proceed.

When EX has finished the Exception Report, the RF Menu is again displayed.

(Intentionally blank)

c. On Order Report - OO

The On Order Report lists items that have been ordered, when they were ordered and when they are expected.

A sample On Order Report is provided in Section 5-2.

To run the On Order Report, use the following procedure:

Step (1) Prompt/Display

{RG Menu}

Explanation

Type OO after the menu is printed.

Step (2) Prompt/Display

SHOULD OUTPUT GO TO THE TERMINAL OR TO THE PRINTER {T,P}?

Explanation

For a hard copy report, position the printer paper so that the top of a page is even with the print head and type 'P'. For a terminal display, type 'T'. Periodically, the display stops and the message

READY {Y,N}?

is printed. This allows time to examine the display. Type 'Y' to resume.

d. Inventory Status Report - IS

The Inventory Status Report (IS) is a condensed listing of most of the information on each item in inventory.

The Inventory Status Report lists certain important information on each inventory item. This information includes quantity in stock, minimum and reorder levels, quantity on order, value, etc. It is presented in a condensed format for quick reference.

Each item in inventory is represented by one line in the Inventory Status Report.

The fields of the output line are as follows:

1. Product Code (key)
2. Description
3. Previous balance
4. Number sold
5. Number returned
6. Number received
7. Current number in stock
8. Number on order
9. Total number available for sale
10. Total value

For more information on these fields, see Section 3-1a. A sample Inventory Status Report is provided in Section 5-3.

The procedure for running the IS Report is on the following page.

Step (1) Prompt/Display

{RG menu}

Explanation

Type 'IS' after the menu is displayed.

Step (2) Prompt/Display

SHOULD OUTPUT GO TO THER TERMINAL OR TO THE PRINTER {T,P}?

Explanation

For a hard copy report, position the printer paper so that the top of a page is even with the print head and type 'P'. For a terminal display, type 'T'. Periodically the display stops and the message

READY {Y,N}?

appears. This allows time to examine the display. Type 'Y' to resume.

e. Physical Inventory Sheet - PI

The Physical Inventory Sheet is a list of inventory items and relevant data with blanks for adding quantities on hand and the date.

The Physical Inventory Sheet contains the item number, description, units, vendor, stock location, previous balance, and last inventory date. Blanks are provided for current quantity and date.

These sheets are intended as physical inventory work sheets and can save time and effort, both during stock counting and data entry.

The procedure for running PI is as follows:

Step (1) Prompt/Display

{RG menu}

Explanation

Type 'PI' after the menu is displayed.

Step (2) Prompt/Display

SHOULD OUTPUT GO TO THE TERMINAL OR TO THE PRINTER {T,P}?

Explanation

For a hard copy report, position the printer paper so that the top of a page is even with the print head and type 'P'. For a terminal display type 'T'. Periodically, the display stops and the message

READY {Y,N}?

appears. This allows time to examine the display. Type 'Y' to resume.

A sample of the PI sheet is provided in Section 5-4.

f. Detailed Inventory Report - DI

The Detailed Inventory Report lists all of the information in the inventory file.

The Detailed Inventory Report is a listing of all the data on file for each inventory item. The report is the same as the output of the Query File function except that it includes all items in the Inventory File and it is available as a hard copy report.

The DI function takes a considerable amount of time to generate a report (especially with hard copy). Unless the special features of DI are required (as described), the QF function may be sufficient (see Section 3-1e).

The procedure for running DI is as follows:

Step (1) Prompt/Display

{RG menu}

Explanation

Type 'DI' after the menu is displayed.

Step (2) Prompt/Display

SHOULD OUTPUT GO TO THE TERMINAL OR TO THE PRINTER {T,P}?

Explanation

For a hard copy report, position the printer paper so that the top of a page is even with the print head and type 'P'. For a terminal display, type 'T'. Periodically, the display stops and the message

READY {Y,N}?

appears. This allows time to examine the display. Type 'Y' to resume.

A sample Detailed Inventory Report is provided in Section 5-5.

(Intentionally blank)

g. Analysis By Cost - ABC

The Analysis By Cost program reports the extended and proportionate cost of each item in inventory.

The Analysis By Cost program calculates each item's extended cost and the proportion of the total value of inventory represented by the item. The formulas for calculating these quantities are as follows:

Extended cost = unit cost of item X number of item in stock

Proportionate value = extended cost of item, **divided by,** total value of inventory

The ABC Report lists these values for each item in stock.

The procedure for running ABC is as follows:

Step (1) Prompt/Display

{RG menu}

Explanation

Type 'ABC' after the menu is displayed.

Step (2) Prompt/Display

SHOULD THE OUTPUT GO TO THE TERMINAL OR TO THE PRINTER {T,P}?

Explanation

For a hard copy report, position the printer paper so that the top of a page is even with the print head and type 'P'. For a terminal display, type 'T'. Periodically, the display stops and the message

READY {Y,N}?

appears. This allows time to examine the display. Type 'Y' to resume.

A sample Analysis By Cost Report is provided in Section 5-6.

3 INVENTORY MANAGEMENT MENU PROGRAMS

3-3 POINT OF SALES PROGRAM - POS

The Point of Sales program (POS) records sales and returns, calculates cash totals and updates the Inventory File.

The Point of Sales program incorporates three functions that handle the normal transactions encountered at the point of sales. These are:

- Cash Register (CR) - Records sales, prints customer receipts, updates the Inventory File.
- Returned Items (RET) - Accepts returned items, prints return receipts, updates the Inventory File.
- Close Out Register - Calculates daily totals of sales, returns and net cash.

When POS is run, it prints a menu of the POS functions. A sample menu is shown below.

To terminate point of sales processing and return to the Main Menu, choose 'END' from the POS Menu.

The detailed procedure for running POS is shown on the following pages.

```
                    SOFTWARE SUPPLY CO.
                  INVENTORY MANAGEMENT
                      POINT OF SALES
                        10/10/78

        THERE ARE FIVE POINT OF SALES FUNCTIONS:

             QF  -  QUERY INVENTORY FILE
             CR  -  CASH REGISTER
             RET -  RETURNED ITEMS
             COR -  CLOSE OUT REGISTER
             END -  END POS, RETURN TO MENU

  WHICH FUNCTION DO YOU WISH TO PERFORM {QF,CR,RET,COR,END}?
```

Step (1) Prompt/Display

{Main Menu Display}

Explanation

Enter 'POS' to run the Point of Sales Program.

Step (2) Prompt/Display

{POS menu}

Explanation

Select the desired report function and type its two or three letter code.

Step (3) Prompt/Display

{Point of sales function}

Explanation

Follow the instructions given in the following six sections for compiling and printing reports.

Step (4) Prompt/Display

{POS menu}

Explanation

When each function finishes, it returns to the POS Menu. At this point, another report my be chosen, or the RG program may be terminated by typing 'END'.

(Intentionally blank)

3-3 POINT OF SALES PROGRAM - POS

a. Query File Function - QF

Instructions for using the QF function are provided in Section 3-1e.

b. Cash Register Function - CR

The Cash Register Function records sales, prints a customer receipt and updates the Inventory File.

The CR function makes the Inventory Management System simulate a conventional cash register. It records the items being purchased, the quantity and prices. It prints a customer receipt and updates the Inventory File to reflect the changes made by the sale.

A sample customer receipt is shown in Section 5-7.

To run CR, use the following procedure:

Step (1) Prompt/Display

{POS menu}

Explanation

To run the Cash Register function, type 'CR' after the menu is printed.

Step (2) Prompt/Display

WHAT IS THE NAME OF AN ITEM TO BE SOLD?

Explanation

Type the key of the item to be sold. To terminate this transaction, type the 'RETURN' key and proceed to step (6). To delete an item, type "INVALID" and go to step (8).

Step (3) Prompt/Display

HOW MANY ARE TO BE SOLD?

Explanation

Enter the quantity being sold.

Step (4) Prompt/Display

CURRENT PRICE IS {price}, IS THIS CORRECT?

Explanation

CR displays the current price of the item from the Inventory File. If it is correct, type the 'RETURN' key. If not, type the correct price for this transaction. This does not change the price in the Inventory File.

Step (5) Prompt/Display

SUBTOTAL IS CURRENTLY {subtotal}

Explanation

CR displays the running subtotal of all items in this transaction. For more items, return to step (2).

Step (6) Prompt/Display

WHAT IS THE % TAX?

Explanation

When all items in the transaction have entered, the system asks for the sales tax rate and computes the tax on the transaction.

Step (7) Prompt/Display

{customer receipt}

DO YOU WISH A HARD COPY RECEIPT {Y,N}?

Explanation

The receipt includes the descriptions of the items sold, the quantities and the unit and extended prices. The receipt is printed on the terminal; if a paper receipt is required, type 'Y' to print it on the system printer. The CR function now returns to step (2). To terminate the CR function, type 'END' in response to the question

Step (8) Prompt/Display

"WHAT IS THE ITEM IN ERROR?"

Explanation

Enter the item to delete from the receipt.

Step (9) Prompt/Display

"ITEM {product code} HAS BEEN REMOVED FROM THIS RECEIPT.

Explanation

Return to step (2).

c. Returned Items Function - RET

The Returned Items (RET) function records returned items, printing a return receipt and updating the Inventory File.

The RET function accepts returned items, issuing receipts and automatically replacing the items in the Inventory File.

A sample return receipt is shown in Section 5-8.

A detailed procedure for running RET follows:

Step (1) Prompt/Display

{POS menu}

Explanation

To run the Returned Items function, type 'RET' after the menu is displayed.

Step (2) Prompt/Display

WHAT IS THE ITEM TO BE RETURNED?

Explanation

Enter the product code of the item to be returned to inventory.

Step (3) Prompt/Display

HOW MANY {code} ARE TO BE RETURNED?

Explanation

Enter the number of items to be shown on this receipt.

Step (4) Prompt/Display

FOR WHAT PRICE WAS EACH ITEM SOLD?

Explanation

Enter the current price of the item when it was sold.

Step (5) Prompt/Display

WHAT WAS THE % TAX?

Explanation

Enter the effective sales tax rate when the item was sold.

Step (6) Prompt/Display

DO YOU WISH A HARD COPY {Y,N}?

Explanation

For a paper receipt, type 'Y' and the receipt is printed on the system printer. If the terminal display is sufficient, type 'N'.

Step (7) Prompt/Display

ARE THERE ANY MORE ITEMS TO BE RETURNED {Y,N}?

Explanation

To enter more returned items, type 'Y' and return to step (2). To exit the function and return to the POS Menu, type 'N'.

d. Close Out Register Function - COR

The Close Out Register (COR) function totals cash receipts and returns for the day.

A sample COR report is shown in Section 5-9. It includes cash receipts, return credits and net cash. A hard copy report slip is optionally available for verification.

The detailed procedure for running COR is on the facing page.

Step (1) Prompt/Display

{POS Menu}

Explanation

To run the Close Out Register function, type 'COR' after the menu is printed.

Step (2) Prompt/Display

{COR report}

DO YOU WISH A HARD COPY {Y,N}?

Explanation

The report is displayed on the terminal. To print a paper report, type 'Y'. Otherwise, type 'N' to return to the POS Menu.

3-4 INVENTORY UPDATE PROGRAM - IU

The Inventory Update (IU) program performs several miscellaneous inventory functions.

The Inventory Update program performs the following functions:

- Update Inventory (UP) - adds new stock to inventory. As ordered items are received, UP adjusts the Inventory File levels and average costs.
- Initialize New Period (INP) - closes the current period, resets all amounts and makes the current balance the balance carried forward in the next period.
- Year-to-Date Sales (YTD) - prints a report showing sales, cost and gross profit for the year to date.
- Labels (LAB) - prints labels for inventory items showing the item key and price.

In addition, IU allows menu selection of the Query File (QF) function.

The detailed procedure for running the IU program is shown on the facing page. The IU Menu is shown below.

```
                    SOFTWARE SUPPLY CO.
                  INVENTORY MANAGEMENT
                     INVENTORY UPDATE
                         10/10/78

        THERE ARE SIX UPDATE FUNCTIONS THAT CAN BE PERFORMED:

             QF  -  QUERY INVENTORY FILE
             UP  -  UPDATE INVENTORY
             INP -  INITIALIZE NEW PERIOD
             YTD -  YEAR TO DATE SALES
             LAB -  LABELS FOR INVENTORY ITEMS
             END -  END IU, RETURN TO MENU

   WHICH FUNCTION DO YOU WISH TO PERFORM {QF,UP,INP,YTD,LAB,END}?
```

Step (1) Prompt/Display

{main menu}

Explanation

To run IU, type 'IU' after the menu is printed.

Step (2) Prompt/Display

{IU menu}

Explanation

Instructions for selecting and running the IU functions are given in the next 5 sections. Select 'END' to terminate the IU program.

(Intentionally blank)

3-4 INVENTORY UPDATE PROGRAM - IU

a. Query File Function - QF

Instructions for using the QF function are provided in Section 3-4e.

b. Update Inventory Function - UP
Steps 1 through 6

The Update Inventory (UP) function adds newly received items to the Inventory File, updating stock levels and average costs.

The Update Inventory function is used to adjust the levels and costs of inventory items as new stock is received. Note the UP does not add new items to the Inventory File. It only updates existing items.

UP calculates the average cost of the items in stock by the following equation:

$$NAC = \frac{OAC \times NO + TC}{NO + NN}$$

Where:

NAC = new average cost
OAC = old average cost
NO = number of items at old average cost
TC = total cost of new items
NN = number of new items

The new total value of the inventory item is the average cost times the number of items in stock.

The detailed procedure for running UP is shown in the next two sections.

Step (1) Prompt/Display

{IU menu}

Explanation

To run Update Inventory function, type 'UP' after the menu is printed.

Step (2) Prompt/Display

WHAT IS THE ITEM PRODUCT CODE?

Explanation

Enter the code for the item to be updated.

Step (3) Prompt/Display

HOW MANY ITEMS WERE RECEIVED.

Explanation

Enter the number of items delivered for stock.

Step (4) Prompt/Display

WHAT WAS THE TOTAL COST OF THIS ORDER FOR THE

{number} ITEMS?

Explanation

Enter the total cost of the items that were delivered. If the entire order was delivered, enter the order amount. If part of the order was delivered, prorate the order amount for the number actually delivered.

Step (5) Prompt/Display

THE OLD AVERAGE COST FOR THIS ITEM WAS {OAC}

THE NEW AVERAGE COST FOR THIS ITEM IS {NAC}

Explanation

UP calculates and displays the old and new average costs.

Step (6) Prompt/Display

DOES THIS COMPLETE THE ORDER DATED {date} {Y,N}?

Explanation

If the entire order has been delivered, type 'Y' and proceed with the next step. If a partial shipment was received, type 'N' and proceed to step (11).

b. Update Inventory Function - UP
Steps 7 through 13

The detailed procedure for running the UP program continues.

Step (7) Prompt/Display

IS THERE ANOTHER OUTSTANDING ORDER FOR THIS {Y,N}?

Explanation

If there are more of this item on order, enter 'Y' and proceed to the next step. If not, answer 'N' and proceed to step (11).

Step (8) Prompt/Display

WHAT IS THE DATE OF THE OLDEST YET OUTSTANDING ORDER

Explanation

Enter the date of the oldest order which has not yet been completely delivered. This updates the on-order status.

Step (9) Prompt/Display

HAVE THERE BEEN ANY NEW, UNENTERED ORDERS PLACED

FOR THIS ITEM {Y,N}?

Explanation

If orders have been placed, but not entered into the Inventory Management System, answer 'Y' and proceed to the next step. If not, enter 'N' and proceed to step (11)

Step (10) Prompt/Display

HOW MANY ITEMS ARE ON ORDER THAT HAVE NOT BEEN ENTERED?

Explanation

Enter the number of items on the unentered orders.

Step (11) Prompt/Display

HAVE THERE BEEN ANY RETURNS FOR THIS ITEM {Y,N}?

Explanation

If there have been any returns on this item that have not been entered through the Point of Sales program, enter 'Y' and proceed to the next step. Otherwise, enter 'N' and proceed to step (13).

Step (12) Prompt/Display

HOW MANY RETURNS WERE MADE?

Explanation

Enter the number of returns that were not entered through the Point of Sales program.

Step (13) Prompt/Display

ARE THERE ANY MORE ITEMS TO UPDATE {Y,N}?

Explanation

If more items are to be updated, enter 'Y' and return to step (2) with the new key item. If not, enter 'N' to return to the IU Menu.

c. Initialize New Period Function - INP

The Initialize New Period (INP) function ends the old period, resets all quantities to their beginning-of-period values and sets the previous balance equal to the current balances.

To run INP, use the following procedure:

Step (1) Prompt/Display

{IU menu}

Explanation

To run the Initialize New Period function, enter 'INP' after the menu is displayed.

Step (2) Prompt/Display

DOES THIS PERIOD TERMINATE THE YEAR?

Explanation

If "Y" is the answer, then year-to-date sales and totals will be reset to zero. If the answer is "N", then YTD sales and totals will be retained.

Step (3) Prompt/Display

SHOULD OUTPUT GO TO THE TERMINAL OR THE PRINTER {T,P}?

Explanation

To print a hard copy end of period report, position the printer paper so that the print head is even with the top of a page and enter 'P'. To display the report on the terminal, type 'T'. Periodically, the display stops and the message

READY {Y,N}?

appears, This allows time to examine the display. Type 'Y' to proceed.

An example of the end of period report is shown in Section 5-10.

d. Year-To-Date Function - YTD

The **Year-To-Date** (YTD) function prints a report including sales, costs, and gross profit for the year to date.

To run YTD, use the following procedure.

Step (1) Prompt/Display

{IU menu}

Explanation

To run the Year-To-Date function, enter 'YTD' after the menu is displayed.

Step (2) Prompt/Display

SHOULD OUTPUT GO TO THER TERMINAL OR THE PRINTER {T,P}?

Explanation

To print a hard copy YTD report, position the printer paper so that the print head is even with the top of a page and enter 'P'. To display the report on the terminal, enter 'T'. Periodically the display stops and the message

READY {Y,N}?

appears. This allows time to examine the display. Type 'Y' to proceed.

An example of the YTD report is shown in Section 5-11.

e. Label Function - LAB

The Label (LAB) function generates identification labels for the inventory items.

The Label function prints tags showing the description of the inventory item and the unit price. These tags can be affixed to each item for identification and pricing. Since LAB always prints a multiple of two tags, there are usually a few extra for contingencies. A sample tag print out is shown in Section 5-12.

The detailed procedure for running LAB is shown on the facing page.

Step (1) Prompt/Display

{IU menu}

Explanation

To print inventory label tags, type 'LAB' after the menu is printed.

Step (2) Prompt/Display

WHAT ITEM SHOULD LABELS BE PRINTED FOR?

Explanation

Enter the key for the item for which labels are required. Type 'END' to terminate the LAB function.

Step (3) Prompt/Display

THE CURRENT PRICE IS {price}

IS THIS CORRECT {Y,N}?

Explanation

LAB retrieves the current price for the item from the Inventory File and displays it. If this is the correct selling price for the item, type 'Y' and proceed to step (5). To correct the price, type 'N' and proceed to step (4).

Step (4) Prompt/Display

WHAT IS THE PRICE TO BE PRINTED ON THE LABELS?

Explanation

Enter the price to be printed on this set of labels. Note that this does not change the price in the Inventory File.

Step (5) Prompt/Display

HOW MANY LABELS SHOULD BE PRINTED FOR THIS ITEM?

Explanation

Enter the required number of labels. LAB prints the next larger multiple of four labels.

Step (6) Prompt/Display

SHOULD OUTPUT GO TO THE TERMINAL OR THE PRINTER {T,P}?

Explanation

To print the labels on the system printer, position the paper as desired and type 'P'. To display the labels on the printer for verification, type 'T'. When the labels have been printed, LAB returns to step (2).

SECTION 4
UTILITY MAINTENANCE PROGRAMS

4 UTILITY MAINTENANCE PROGRAMS

The Utility Maintenance programs perform several support functions for the Inventory Management System. The Utility Maintenance programs are selected by displaying the Utility Menu and entering the name of the programs to be run.

An example of the Utility Menu for disk cartridge or floppy disk users is provided on the opposite page.

Step by step procedures for each utility program are contained in Sections 4-1 through 4-3. Floppy disk associated programs are discussed in Section 4-1, while disk cartridge associated programs are explained in Section 4-2. Section 4-3 pertains to both floppy disk and disk cartridge users. The System Generation (SYSGEN) and Create Inventory File (CREATE) programs are described in Section 4-3.

Each of the Utility Maintenance programs are started as follows:

First, display the Inventory Management Main Menu.

After the Prompt:

WHICH SELECTION DO YOU WISH TO MAKE?

enter:

UTILITY

The system will respond by displaying the appropriate Utility Menu as shown on the opposite page.

After the prompt:

WHICH UTILITY WOULD YOU LIKE TO RUN?

Enter the name of the utility function to be run.

Return to the main IM Menu is made by entering the selection:

MENU

```
                                SOFTWARE SUPPLY CO.
                                INVENTORY MANAGEMENT
                            INVENTORY MANAGEMENT MENU
                                    10/1/78

THERE ARE SIX UTILITIES THAT YOU CAN RUN:

                    FORMAT  -  FORMAT A NEW DISKETTE
                    SYSGEN  -  SYSTEM GENERATION
                    CREATE  -  CREATE NEW INVENTORY FILE
                    COPYR   -  COPY RANDOM FILES
                    COPYS   -  COPY  SEQUENTIAL FILES
                    DCOPY   -  COMPLETE DISK COPY
                    MENU    -  RETURN TO MAIN IM MENU

WHICH UTILITY WOULD YOU LIKE TO RUN?
```

The Floppy Disk Utility Menu

```
                                SOFTWARE SUPPLY CO.
                                INVENTORY MANAGEMENT
                            INVENTORY MANAGEMENT MENU
                                    10/10/78

                                  ------------

THESE ARE THE UTILITY FUNCTIONS AVAILABLE

     FORMAT      DISK CARTRIDGE INITIALIZATION
     SYSGEN      SYSTEM GENERATION
     CREATE      NEW INVENTORY FILES
     COPYH       COPY DISK FILES
     DCOPY       COPY DISK COARTRIDGE
     MENU        RETURN TO MAIN IM MENU

WHICH UTILITY WOULD YOU LIKE TO RUN?
```

The Cartridge Disk Utility Menu

4 UTILITY MAINTENANCE PROGRAMS

4-1 FLOPPY DISK UTILITY MAINTENANCE PROGRAMS

a. Diskette Format and Reformat Program (FORMAT)

The Diskette Format and Reformat (FORMAT) program is used to format a new diskette before the diskette is used to store data, or to reformat a previously used disk.

To start the FORMAT program, display the Utility Menu.

After the prompt:

WHICH UTILITY WOULD YOU LIKE TO RUN?

enter:

FORMAT

IMPORTANT

The FORMAT program will erase all information stored on a diskette. Therefore, it is important to ensure that the diskette being formatted does not contain system programs or current data filed.

A detailed explanation of the FORMAT program follows.

Step (1) Prompt/Display

```
PLEASE INSERT THE DISKETTE TO BE PROCESSED
INTO DRIVE (d).  READY (Y OR N)?
```

Explanation

Insert the diskette into drive (d).

Enter 'Y' when ready to continue.

Step (2) Prompt/Display

```
***PROGRAM TO FORMAT A DISKETTE***
***C A U T I O N***
THIS PROGRAM WILL ERASE ANY INFORMATION
ON THE DISKETTE IN DRIVE (d).
ARE YOU SURE YOU WANT TO CONTINUE?
```

Explanation

Enter 'Y' to indicate that the proper diskette has been inserted in drive (d).

Step (3) Prompt/Display

```
PROCESSING TRACK: (t)
```

Explanation

The program displays on the CRT unit each track number on the diskette as that track is being formatted. If a track is incapable of being formatted, meaning the diskette has a physical flaw, the message ERROR (t) (s) will be printed, indicating the track (t) and sector (s) that is flawed.

Step (4) Prompt/Display

```
***THE DISKETTE IN DRIVE (d) HAS BEEN
FORMATTED***
```

Explanation

Will be printed when the program is finished.

b. Copy Random File (COPYR)

Floppy disk Copy Random File (COPYR) program is used on dual disk systems to copy random files from a source disk to a destination disk. The COPYR program does not require the source and destination disks to be moved.

To run the COPYR program, display and Utility Menu.

After the prompt:

WHICH UTILITY DO YOU WISH TO RUN?

enter:

COPYR

When COPYR program has been run the Utility Menu reappears.

A step by step explanation of the COPYR program follows:

Step (1) Prompt/Display

PLEASE INSERT THE DISKETTES TO BE PROCESSED
INTO THE PROPER DRIVES. READY {Y, N}?

Explanation

Place the diskettes to be copied to and from into the proper disk drives.

Step (2) Prompt/Display

MOUNT NECESSARY {Y, N}?

Explanation

Enter 'N' if the diskettes have not been moved. Enter 'Y' if changing diskettes. COPYR asks if diskettes are inserted and ready. Answer 'Y' to proceed.

Step (3) Prompt/Display

PROGRAM TO COPY A DISKETTE {2-DISK SYSTEMS}
WHAT IS THE NAME OF THE RANDOM FILE TO BE COPIED?

Explanation

Key in the name of the source file to be copied.

Step (4) Prompt/Display

ON WHAT DRIVE DOES (source) RESIDE?

Explanation

Key in the source disk drive number (0 or 1).

Step (5) Prompt/Display

WHAT IS THE NAME OF THE FILE TO BE CREATED?

Explanation

Key in the name of the destination file to be created. Eight characters maximum.

Step (6) Prompt/Display

ON WHAT DRIVE SHALL (destination) RESIDE?

Explanation

Key in the destination disk drive number (0 or 1). The program then commences the copy procedure.

Step (7) Prompt/Display

FILE (source) ON DRIVE (d1) WAS COPIED INTO FILE (destination) ON DRIVE (d2). THERE WERE (n) RECORDS COPIED.

Explanation

The file has been copied and COPYR is ready to copy another file or exit to the Utility Menu.

Step (8) Prompt/Display

COPY ANOTHER FILE? (Y or N)?

Explanation

Enter 'Y' if another copy is required and proceed to **step (1)**.

Step (9) Prompt/Display

REMOUNT NECESSARY?

Explanation

Enter 'Y' if changing disks.

c. Copy Sequential File Routine (COPYS)
Step 1 through 5: Defining System and Mounting Diskette

The floppy disk Copy Sequential File Routine (COPYS) program is used to copy sequential files from a source diskette to a destination diskette.

To copy sequential files, display the Utility Menu.

After the prompt:

WHICH UTILITY WOULD YOU LIKE TO RUN?

enter:

COPYS

A description of the COPYS program procedure follows:

Step (1) Prompt/Display

COPY SEQUENTIAL FILES PROGRAM
DOES THE FILE TO BE COPIED CONTAIN
STRING INFORMATION?

Explanation

Enter 'YES' if this file to be copied was created using string values.

Enter 'NO' if the file was created using integer values. In the Inventory Management System, #INV.SYS is created with Strings and is the only sequential file.

Step (2) Prompt/Display

IS THIS A DUAL DRIVE SYSTEM?

Explanation

Enter 'YES'.

Step (3) Prompt/Display

IS (ARE) THE PROPER DISKETTES(S) MOUNTED (Y,N)?

Explanation

Enter 'Y' if the proper diskettes are already mounted and proceed to step (5). Otherwise, enter 'N'.

Step (4) Prompt/Display

PLEASE INSERT PROPER DISKETTES. READY (Y,N)?

Explanation

Insert the proper diskettes.
Enter 'Y' when ready.

Step (5) Prompt/Display

WHAT IS THE NAME OF THE SEQUENTIAL FILE TO BE COPIED?

Explanation

Enter the file name of the existing sequential file.

c. Copy Sequential File Routine (COPYS)
Steps 6 through 9: Copying Diskettes

Since two floppy disk drives are being used, the system must be informed which drive contains the source file and which the destination file.

Step (6) Prompt/Display

```
WHAT IS THE NAME OF THE SEQUENTIAL
FILE TO BE CREATED?
```

Explanation

Enter the file name of the proposed new sequential file.

Step (7) Prompt/Display

```
ON WHAT DRIVE IS {SOURCE} MOUNTED?
```

Explanation

Enter drive number (0 or 1) of source file.

Step (8) Prompt/Display

ON WHAT DRIVE IS {DESTINATION} MOUNTED?

Explanation

Enter drive number (0 or 1) of destination file, and proceed to step (9).

Step (9) Prompt/Display

FILE {SOURCE} ON DRIVE {d} HAS BEEN COPIED TO FILE {DESTINATION} ON DRIVE {d2} THERE WERE {n} ITEMS COPIED. ***END OF COPY***

Explanation

Will be printed when the program has finished.

d. Copy Complete Diskette Program (DCOPY)

DCOPY copies the complete contents of a floppy diskette (the source disk) to another diskette (the destination). The destination disk need not be formatted before running DCOPY.

Step (1) Insert the source diskette into one drive and the destination diskette into the other. Be sure both drive doors are closed.

Step (2) Prompt/Display

FLOPPY DISK COPY ROUTINE
WHICH DISK DO YOU WISH TO COPY FROM?

Explanation

Enter the number of the drive into which the source diskette was inserted.

Step (3) Prompt/Display

WHICH DISK DO YOU WISH TO COPY TO?

Explanation

Enter the number of the drive into which the destination disk was inserted.

Step (4) Prompt/Display

DO YOU WISH ANOTHER COPY?

Explanation

To copy another disk, remove the diskettes, replace them with the new diskettes and enter 'Y'. Return to step (2). To terminate the DCOPY program, enter 'N'.

Step (5) Prompt/Display

PLEASE REMOUNT THE PROPER DISKETTES AND RUN THE APPROPRIATE MENU.

Explanation

Make sure the proper data diskettes are inserted into the drives. When the BASIC Operating System prints OK,

```
MOUNT
```

After BASIC again prints OK, run the main Inventory Management Menu by entering the following command:

```
RUN "IM MENU"
```

4-2 CARTRIDGE DISK UTILITY FILE MAINTENANCE

a. Cartridge Disk Initialization Program (FORMAT)

The Cartridge Disk Format (FORMAT) program is used to erase all information from a previously used disk cartridge. A new disk cartridge is formatted by the format option of the DCOPY program, explained in Section 4-2c.

To start the FORMAT program, display the Utility Menu.

After the prompt:

```
WHICH UTILITY WOULD YOU LIKE TO RUN?
```

enter:

```
FORMAT
```

The FORMAT program will erase any information stored on a disk. Therefore, it is important to ensure that the disk being formatted does not contain system programs or current data files.

A detailed explanation of the FORMAT program follows:

Step (1) Prompt/Display

```
ONE MOMENT FOR SETUP....
```

Explanation

The disk drives are now being loaded into memory.

Step (2) Prompt/Display

```
ENTER ADDRESS OF  DISK TO BE INITIALIZED AS FOLLOWS:
ENTER UNIT NUMBER FROM THUMBWHEEL SWITCH OF
DESIRED UNIT (1-4) X
  ENTER PLATTER NUMBER AS FOLLOWS:
    0 - REMOVABLE
    1 - TOP FIXED
    2 - MIDDLE FIXED (QUAD DISK ONLY)
    3 - BOTTOM FIXED (QUAD DISK ONLY)
ENTER PLATTER NUMBER (0-3) Y
```

Explanation

Enter the drive unit number (X) which can be read from the thumbwheel switch on the front of the disk drive unit. Enter the platter number (Y) from the displayed table.

Step (3) Prompt/Display

DO YOU WANT TO PUT BASIC ONTO THIS DRIVE (Y or N)?

Explanation

Enter 'Y' to copy BASIC from another drive onto the one presently being initialized, and proceed to step (4). Otherwise, enter 'N' and proceed to step (5).

Step (4) Prompt/Display

ENTER DRIVE FROM WHICH TO GET BASIC.

Explanation

Enter the drive unit number that contains the BASIC to be copied on the initialized platter.

Step (5) Prompt/Display

ENTER NAME OF NEW VOLUME (UP TO 24 CHARACTERS)

Explanation

Enter the new name or number for this volume.

Step (6) Prompt/Display

ENTER CREATION DATE FOR NEW VOLUME (MM/DD/YY)

Explanation

Enter the date you want to record as the creation date for this volume.

Step (7) Prompt/Display

INITIALIZING VOLUME...

Explanation

The volume name, creation date and BASIC, if selected, will be written to the chosen platter. The directory pointers on this platter will be reset to zero.

Step (8) Prompt/Display

INITIALIZATION COMPLETE . . .
END OF VOLUME INITIALIZATION
PLEASE RE-MOUNT THE NEEDED DISKS AND RUN THE PROPER MENU

Explanation

The initialization process is complete.

b. Copy Data File Program (COPYH)
Steps 1 through 6: Copy Specific File

The cartridge disk Copy Data File (COPYH) program allows for data file transfer from a source disk to a destination disk, or from one location on a disk to another location on that same disk.

To run the COPYH program display the Utility Menu.

After the prompt:

WHICH UTILITY DO YOU WISH TO RUN?

enter:

COPYH

When the COPYH program has been run, the Utility Menu appears.

A step-by-step explanation of the COPYH program follows:

Step (1) Prompt/Display

ENTER DRIVE NUMBER TO COPY FROM

Explanation

Enter the drive number that contains the file you want to copy.

Step (2) Prompt/Display

DO YOU WISH TO SCAN DIRECTORY OR ENTER LIST OF FILES (S OR L)?

Explanation

If many of the files on the disk are to be copied, enter 'S' to scan the directory and proceed to step (3). To copy a few files, enter 'L' and proceed to step (10).

Step (3) Prompt/Display

DO YOU WANT TO SELECT FILES DURING SCAN (Y OR N)?

Explanation

Enter 'Y' if there are many files on the disk that are not to be copied. Otherwise, enter 'N'.

Step (4) Prompt/Display

SCANNING VOLUME x

Explanation

COPYH scans the directory of the disk and prints the volume name. If the answer in step (3) was 'Y', processing continues as step (5). Otherwise, proceed to step (6).

Step (5) Prompt/Display

ENTER 'Y' TO INCLUDE A FILE, RETURN TO LEAVE OUT (file name)

Explanation

As each file name in the directory is displayed, enter 'Y' to copy the file or type RETURN to leave it out.

Step (6) Prompt/Display

LIST OF (x) FILES FOR COPYING DRIVE (y), VOLUME (z)

Explanation

COPYH displays the list of files to be copied, the number of files in the list, the drive number and volume name of the source disk.

b. Copy Data File Program (COPYH)
Steps 7 through 14: Copy All Files

After displaying the list of files to be copied, COPYH gives the opportunity to add or delete files from the list before copying.

Step (7) Prompt/Display

COPY THIS LIST, DELETE A FILE OR ADD A FILE (C, D OR A)?

Explanation

Enter 'C' if all the files listed in step (6) are to be copied, and proceed to step (10).
Enter 'A' to add a file to the list and proceed to step (9).
Enter 'D' to delete a file from the list and proceed to step (8).

Step (8) Prompt/Display

ENTER FILE NAME THAT YOU DON'T WANT TO COPY:

Explanation

Enter the name of the file to be deleted from the list. If the file name is not in the list, COPYH prints

***FILE NOT FOUND

and asks for another file name. Otherwise, COPYH deletes the file and returns to step (7).

Step (9) Prompt/Display

ENTER NAME OF FILE TO COPY (HIT RETURN WHEN DONE):

Explanation

Enter the name of the file to add to the list. Type the RETURN key after the entry. Return to step (7). If the file named is not on the source disk, COPYH prints

***FILE NAME NOT FOUND ON DRIVE (y)

and asks for another file name.

Step (10) Prompt/Display

SOURCE DRIVE IS X , VOLUME NAME IS (Y)
ENTER NUMBER OF DRIVE TO COPY FILES TO (Z)

Explanation

The system will display the drive number (X) you previously entered in step (1) and the name (Y) of the volume.

Enter the drive number (Z) that will be the destination of the copied files.

Step (11) Prompt/Display

VOLUME NAME IS (X)

Explanation

The name of the volume (X) that will receive the copied files is now displayed.

Step (12) Prompt/Display

DO YOU WANT A HARD COPY LIST OF THE FILES TO BE COPIED (Y OR NO)?

Explanation

Enter 'Y' and a hard copy listing will be printed on the printer.
Enter 'N' if no listing is desired.

Step (13) Prompt/Display

COPYING (X) FROM DRIVE (Y) TO (Z).

Explanation

As each file (X) is read from drive number (Y) and written on drive number (Z) this data will be displayed.

Step (14) Prompt/Display

END OF MULTIPLE FILE COPY PROGRAM
PLEASE RE-MOUNT NEEDED DISKS AND RUN
THE PROPER MENU.

Explanation

When the system has completed copying the requested files this message will be displayed.

c. Copy Complete Cartridge Disk Program (DCOPY)
Steps 1 through 4: Copy Entire Contents

DCOPY copies the entire contents of one cartridge disk platter to another platter. Optionally, it formats the target platter.

The DCOPY program has two functions:

- It copies the entire contents of one cartridge disk platter (the source) to another (the destination). Since the computer's memory is too small to store the whole contents of a disk platter, both the source and destination platters must be on the line when the DCOPY program is run.
- Optionally, DCOPY can format the target platter before copying the information onto it. All new disks must be formatted before they can be used to store programs and data files.

Before running DCOPY, make sure both the source and destination platters are on line. In one-drive systems, this means that information can be copied from the removable cartridge to a fixed platter, from a fixed platter to the removable cartridge or (in quad-disk drives) between fixed platters.

DCOPY can be run by displaying the Utility Maintenance menu. When the system asks

```
WHICH UTILITY WOULD YOU LIKE TO RUN?
```

enter:

```
DCOPY
```

Alternately, the same actions are performed by the BASIC Operating System utility HDCOPY. When BASIC prints it prompt OK, mount the source and destination disks and enter the following command:

```
RUN "HDCOPY" <source disk>
```

where <source disk> is the number of the disk on which the BASIC Operating System resides.

Step (1) Prompt/Display

```
ENTER ADDRESS OF DISTINATION DISK AS FOLLOWS:
ENTER UNIT NUMBER (FROM THUMBWHEEL SWITCH) OF DESIRED
UNIT (1-4):
```

Explanation

Enter the number on the thumbwheel switch on the front panel of the drive unit in which the destination disk is mounted.

Step (2) Prompt/Display

```
ENTER PLATTER NUMBER AS FOLLOWS:

     0 - REMOVABLE
     1 - TOP FIXED
     2 - MIDDLE FIXED (QUAD DISK ONLY)
     3 - BOTTOM FIXED (QUAD DISK ONLY)
ENTER PLATTER NUMBER (0 - 3):
```

Explanation

Enter the platter number of the destination disk.

Step (3) Prompt/Display

```
ENTER ADDRESS OF SOURCE DISK:
ENTER UNIT NUMBER (FROM THUMBWHEEL SWITCH) OF DESIRED
    UNIT (1-4):
```

Explanation

Enter the number on the thumbwheel switch on the front panel of the drive unit in which the source disk is mounted.

Step (4) Prompt/Display

(same as step (2))

Explanation

Enter the platter number of the source disk

c. Copy Complete Cartridge Disk Program (DCOPY)
Steps 5 and 6: Format Option

The DCOPY program is used to format a new disk cartridge.

Step (5) Prompt/Display

FORMAT TARGET PLATTER

Explanation

If the destination disk is new, enter 'Y'.
Otherwise, enter 'N'.

Step (6) Prompt/Display

```
XXXX ERRORS DURING COPY
END OF HARD DISK COPY PROGRAM
PLEASE RE-MOUNT NEEDED DISKS AND RUN THE PROPER MENU
```

Explanation

If errors were detected in the copy action, enter the following command:

```
MOUNT
```

and repeat the copy procedure using DCOPY. If three tries fail to produce an error-free copy, consult your dealer. At this point the removable disk can be removed, if desire (e.g., for backup) and a new disk inserted.

To copy the contents of a removable cartridge onto another removable cartridge for backup, copy the contents of the removable platter to the fixed platter, remove the source cartridge, replace it with the destination cartridge and copy the fixed platter's contents back to the removable cartridge.

4-3 SYSTEM GENERATION AND CREATE INVENTORY DATA

a. System Generation Program (SYSGEN)

Steps 1 through 4: Bringing Up Program

The System Generation (SYSGEN) program is used to set or change certain system parameters and record them on the disk containing the system and programs. This program should only be run immediately after the system has been set up or when system parameters (such as the password) need to be changed.

To run the SYSGEN program, display the Utility Menu.

After the prompt:

WHICH UTILITY WOULD YOU LIKE TO RUN?

enter:

SYSGEN

A step by step detailed procedure for using the SYSGEN program follows:

NOTE

It is recommended that the SYSGEN program be run with the help of PCC Microsystems Dealer.

A SYSGEN checklist is provided in Appendix A.

Step (1) Prompt/Display

```
PLEASE INSERT THE DISK TO BE PROCESSED.
THIS PROGRAM WILL AUTOMATICALLY PERFORM THE "MOUNT"
FOR YOU.
READY (Y OR N)?
```

Explanation

Insert the disk containing the system programs into dirve number 0.

Key in 'Y' or 'YES' when ready to continue

Step (2) Prompt/Display

```
IN WHICH DRIVE HAS DISK BEEN MOUNTED?
```

Explanation

Enter the number of the drive in which the disk was inserted.

Step (3) Prompt/Display

```
DISK IS MOUNTING
```

Explanation

This is printed while the system performs the MOUNT function.

Step (4) Prompt/Display

```
***PROGRAM TO INITIALIZE THE $SYSTEM
PARAMETERS***
***NOTE:  THE DEFAULT VALUE IS THE VALUE
ASSUME IF YOU HIT  RETURN WITH NO ENTRY
FOR THAT ITEM
```

Explanation

Will be displayed when program is ready.

4-3 SYSTEM GENERATION AND CREATE INVENTORY DATA

a. System Generation Program (SYSGEN)
Steps 5 through 9: General System Parameters

The SYSGEN program requires that general system parameters (i.e., system name, creation date, etc.) be set up.

Step (5) Prompt/Display

SYSTEM NAME

Explanation

Enter the name of the system being generated (INVENTORY MANAGEMENT). Maximum length is 24 characters.

No default value.

Step (6) Prompt/Display

SYSTEM PASSWORD

Explanation

Enter the password which must be presented during the execution of the Start-up Program. Maximum length is 8 characters. The password is initially set to IMTEST.

Step (7) Prompt/Display

DISK TITLE/VERSION

Explanation

Enter the title of the disk, such as MITS IM A006.1, #205 (maximum 24 characters).

Step (8) Prompt/Display

CREATION DATE

Explanation

Enter date system is first generated in MM/DD/YY format.

Step (9) Prompt/Display

LAST ACCESS DATE

Explanation

Enter today's date, in MM/DD/YY format.

4-3 SYSTEM GENERATION AND CREATE INVENTORY DATA FILE

a. System Generation Program (SYSGEN)
Steps 10 through 14: Terminal Initialization

The SYSGEN program requests terminal parameters be entered.

Step (10) Prompt/Display

TERMINAL STATUS PORT

Explanation

Type in the status port number (normally 16) through which the terminal is interfaced with the system.

Step (11) Prompt/Display

TERMINAL SENSE SWITCH

Explanation

Type in the sense switch setting for this terminal (normally a 1). Consult the **BASIC Reference Manual.**

Step (12) Prompt/Display

CODES CLEAR SCREEN

Explanation

Type in the 3-diget ASCII codes for the terminal clear screen command. For an ADM-3, this will be 026. For a MITS B-100, this will be 027069 (ESCAPE/E).

Consult terminal handbook if neither of these terminals is being used.

Step (13) Prompt/Display

TERMINAL WIDTH

Explanation

Type in the width in characters of the terminal line, normally 80.

Step (14) Prompt/Display

TERMINAL NUMBER OF NULLS

Explanation

Type in the number of null characters (normally 0) to be output to the terminal preceding each message.

4-3 SYSTEM GENERATION AND CREATE INVENTORY DATA FILE

a. System Generation Program (SYSGEN)

Step 15: Printer Type Code

The SYSGEN program recognizes the standard printers used with this system. However, non-standard printers require a modification of the program.

If a non-standard printer is used in a system, then each program must be modified to recognize this printer. All program references to hardcopy devices are contained in the BASIC statements 65520 through 65529. BASIC statment 65520 begins the subroutine to switch the printed data to the hardcopy device back to the system console. For example, the statement sequence

```
GOSUB 65520                 SWITCH TO PRINTER
PRINT "THIS IS A TEST"      PERFORM PRINT
GOSUB 65525                 SWITCH BACK TO VIDEO
```

will print THIS IS A TEST onto the printer and then return to the system console (assuming that the 65520 and 65525 subroutines perform correctly). If a standard MITS 2SIO serial interface card is used and the serial printer is connected to the second port, then the switch subroutines will be:

```
65520   CONSOLE   18,1:   RETURN   SWITCH TO PRINTER

65525   CONSOLE   16,1:   RETURN   SWITCH BACK TO VIDEO
```

Step (15) Prompt/Display

PRINTER TYPE CODE

Explanation

Enter the printer type code:
S=Standard Serial Device;

C=C700
Q=Q70

If none of the above, see introduction to step (15).

a. System Generation Program (SYSGEN)
Steps 16 through 20: Printer Initialization

The SYSGEN program requests printer parameters to be entered.

Step (16) Prompt/Display

PRINTER STATUS PORT

Explanation

For serial printers only, type in the port number. This is normally 18.

Enter 0 if the printer is not a serial type.

Step (17) Prompt/Display

PRINTER SENSE SWITCH

Explanation

This is the sense switch setting for the serial printer (normally a 1). See the BASIC Reference Manual.

Enter 0 if the printer is not a serial type.

Step (18) Prompt/Display

TOP OF FORMS CODE(S)

Explanation

Enter in the set of 3-digit ASCII characters which, if printed out to the printer, will cause a top-of-forms action. If the printer has no top-of-forms control, enter a 048 and the programs will perform a series of PRINT statements to simulate a top-of-forms command. The standard top-of-forms control character is an ASCII 012.

Step (19) Prompt/Display

PRINTER WIDTH

Explanation

Enter the maximum number of characters in the printer print line. This should be at least 80.

Step (20) Prompt/Display

PRINTER NULLS

Explaination

Enter the number of null characters (normally 0) to be output to the printer preceding each line of printed text.

4-3 SYSTEM GENERATION AND CREATE INVENTORY DATA FILE

a. System Generation Program (SYSGEN)
Steps 21 and 22: File Drive Number

Step (21) Prompt/Display

"#INVFILE" DRIVE NUMBER

Explanation

Enter appropriate drive (unit) number

Step (22) Prompt/Display

BASE ASSEMBLY ADDRESS?

Explanation

This address is preset for your version of BASIC. Consult your dealer if your version changes.

a. System Generation Program (SYSGEN)
Step 23: Disk Type

Step (23) Prompt/Display

DISK TYPE (H OR F)?

Explanation

Enter 'H' for cartridge disk.
Enter 'F' for floppy disk.

(Intentionally blank)

4-3 SYSTEM GENERATION AND CREATE INVENTORY DATA FILE

a. System Generation Program (SYSGEN)

Steps 24 through 27: Company Name, Address, and Password

The company name and address to appear on each report must be entered.

Step (24) Prompt/Display

COMPANY NAME

Explanation

Key in the name of the company that is to be printed on each report and listing (maximum 24 characters).

Step (25) Prompt/Display

ADDRESS 1 OF 2

Explanation

Key in the company address first line (maximum 24 characters).

Step (26) Prompt/Display

ADDRESS 2 OF 2

Explanation

Key in the company address second line, including zip code (maximum 24 characters).

Step (27) Prompt/Display

DATA FILE PASSWORD

Explanation

Not Applicable. This value currently not accessed or processed by the system.

b. Create Inventory File (CREATE)

The CREATE program is used to create the file headers for the Inventory Data files. This program must be run before any data is stored on a new disk. It is important to ensure that the disk being used in this program does not contain any current data file, as this program will destroy it.

To run the CREATE program, display the Utility Menu.

After the prompt:

WHICH UTILITY WOULD YOU LIKE TO RUN?

enter:

CREATE

A detailed procedure for using the CREATE program follows:

Step (1) Prompt/Display

```
PLEASE INSERT THE DISK TO BE PROCESSED
INTO DRIVE (d). READY?
```

Explanation

Insert the disk into drive (d), depending on whether the system is a 1 or 2 drive system.

Enter 'Y' when ready to continue.

Step (2) Prompt/Display

```
***THIS PROGRAM TO CREATE AN ISAM FILE HEADER***
THIS PROGRAM WILL DESTROY ANY INVENTORY DATA FILE
ON DISK -- ARE YOU SURE YOU WANT TO CONTINUE (Y OR N)?
```

Explanation

If there is an existing Inventory Data File disk in drive (d), it will be destroyed in the process of creating a new file header.

Enter 'Y' if these files are not on this disk. Otherwise, enter 'N' and proceed to step (3).

Use the MITS BASIC "KILL" command to remove the files from the disk before rerunning the CREATE program.

Step (3) Prompt/Display

```
***FILE CREATE COMPLETE***
```

Explanation

Will be printed when CREATE is completed.

SECTION 5

LISTINGS FROM THE TEST DATA FILES

5 LISTINGS FROM THE TEST DATA FILES

The Inventory Management System is supplied on disks that include sample Inventory Files.

When the Inventory Management System is first installed, the Inventory Files contain sample data.

The procedure in Section 2-3g allows these test data files to be saved for future reference. To use files so saved, remove the active data file disk from drive 1 and insert the disk with the test files (in cartridge disk systems, they may be the same disk). Mount the disk and, if the files have been renamed as shown in Section 2-3g, execute the following BASIC command:

```
NAME "TESTINV" AS "INVFILE"
```

Now, enter the Inventory Management System as usual and run the desired report or listing programs.

The following sections show how these reports and listings look. The following reports are shown:

Section	Title
5-1	Exceptions Report
5-2	On Order Report
5-3	Inventory Status Report
5-4	Physical Inventory Sheet
5-5	Detailed Inventory Report
5-6	Analysis By Cost
5-7	Sample Customer Receipt
5-8	Sample Return Receipt
5-9	Close Out Register Report
5-10	End of Period Report
5-11	Year-to-Date Report
5-12	Sample Labels

5 LISTINGS FROM THE TEST DATA FILES

5-1 EXCEPTIONS REPORT

The Exceptions Report is a listing of all items which exhibit exceptional conditions; such as low stock levels, reorder levels, order quantities, etc.

INVENTORY MANAGEMENT
EXCEPTION REPORT
AS OF 10/10/78

PAGE 1

PRODUCT CODE	DESC.	REORDER LEVEL	REORDER QUANT	REORDER VENDOR	MIN BAL	CURRENT LEVEL	CURRENT ORDER	LEAD TIME	STATUS REMARK
1234567890123456	BAY DOOR	2	6	STANFFFF	1	4	3	40	PAST DUE
15A-1234567-0	15 AMP POWE	3	8	SPS-RIT	2	7	3	30	PAST DUE
8A-1234567-00	8 AMP POWER	2	6	SPS-RIT	1	2	4	30	PAST DUE
BD 43124-67TT	BAY DOOR	1	8	STANFTT	1	7	5	60	PAST DUE
C/YT U&R-89	CRT DOUBLE	2	20	SMITH	0	-20	6	7	PAST DUE
CASTER-SINGLE	CASTER	3	11	12345678	2	8	5	21	PAST DUE
CH103-RT4572111	SIDE ARM CH	19	20	J&L	3	61	40	60	PAST DUE
CH105/RTS/67	SEC.CHAIR	3	10	YACY/YY	20	2	10	0	PAST DUE
TAB022	TABLE 22IN	5	10	UNK.	10	-84	0	44	DEPLETED
WS2444/H/7889	WORK STAND	2	200		10	48	1	20	PAST DUE

5-2 ON ORDER REPORT

The On Order Report lists items that were ordered, when they were ordered, and when they are expected.

INVENTORY MANAGEMENT
ON ORDER REPORT
AS OF 10/10/78

PAGE 1

PRODUCT CODE	ITEM DESC.	WHEN ORDERED	LEAD TIME	WHEN OVERDUE	NO.OF UNITS	COST PER UNIT	COST OF ORDER
1234567890123456	BAY DOOR	05/15/77	40	06/24/77	3	66.00	198.00
15A-1234567-0	15 AMP POWE	05/01/77	30	05/31/77	3	32.00	96.00
8A-1234567-00	8 AMP POWER	06/01/77	30	07/01/77	4	12.00	48.00
BD 43124-67TT	BAY DOOR	06/01/77	60	07/31/77	5	45.00	225.00
C/YT U&R-89	CRT DOUBLE	04/04/77	7	04/11/77	6	223.89	1,343.34
CASTER-SINGLE	CASTER	05/02/77	21	05/23/77	5	19.33	96.65
CH103-RT4572111	SIDE ARM CH	07/07/77	60	09/05/77	40	120.00	4,800.00
CH105/RTS/67	SEC.CHAIR	05/05/77	0	05/05/77	10	125.00	1,250.00
WS2444/H/7889	WORK STAND	04/04/77	20	04/24/77	1	111.00	111.00

5 LISTINGS FROM THE TEST DATA FILES

5-3 INVENTORY STATUS REPORT

The Inventory Status Report lists certain important information on each inventory item; such as quantity in stock, quantity on order, cost, etc.

INVENTORY MANAGEMENT
INVENTORY STATUS REPORT
AS OF 10/10/78

PAGE 1

PRODUCT CODE	DESC.	PREV. BAL.	SALES	RET'S	REC'S	CURR	ON ORDER	AVAIL	TOTAL VALUE
1234567890123456	BAY DOOR	4	3	0	3	4	3	7	264.00
15A-1234567-0	15 AMP PO	13	17	3	8	7	3	10	224.00
8A-1234567-00	8 AMP POW	4	4	0	2	2	4	6	24.00
BD 43124-67TT	BAY DOOR	3	1	2	3	7	5	12	315.00
C/YT U&R-89	CRT DOUBL	7	50	3	20	-20	6	-14	-4,477.80
CASTER-SINGLE	CASTER	10	8	2	4	8	5	13	154.64
CH103-RT4572111	SIDE ARM	40	20	2	39	61	40	101	7,320.00
CH105/RTS/67	SEC.CHAIR	3	2	1	0	2	10	12	250.00
CH105/RTS/68	EXEC. CHA	10	0	8	40	58	0	58	8,700.00
TAB022	TABLE 22I	4	122	4	30	-84	0	-84	-3,696.00
WS2444/H/7889	WORK STAN	20	0	8	20	48	1	49	5,328.00
								TOTAL INVENTORY VALUE =	$14,405.84

5 LISTINGS FROM THE TEST DATA FILES

5-4 PHYSICAL INVENTORY SHEET

The Physical Inventory Sheet contains the item number, description, units, vendor, stock location, previous balance, and last inventory date.

INVENTORY MANAGEMENT
PHYSICAL INVENTORY LIST
AS OF 10/10/78

PAGE 1

PRODUCT CODE	DESC.	UNITS	VENDOR	LOC	---PREVIOUS--- DATE	BAL	---CURRENT---- DATE	BAL
1234567890123456	BAY DOOR	EACH	STANFFFF	DD34	05/01/77	4	__/__/__	____
15A-1234567-0	15 AMP POWER	PAIR	SPS-RIT	S1	04/01/77	13	__/__/__	____
8A-1234567-00	8 AMP POWER	PAIR	SPS-RIT	S2	05/01/77	4	__/__/__	____
BD 43124-67TT	BAY DOOR	EACH	STANFTT	SSSS	05/01/77	3	__/__/__	____
C/YT U&R-89	CRT DOUBLE W	EACH	SMITH	TT4	06/06/77	7	__/__/__	____
CASTER-SINGLE	CASTER	SET	12345678	1234	06/01/77	10	__/__/__	____
CH103-RT4572111	SIDE ARM CHA	EACH	J&L	RR	06/01/77	40	__/__/__	____
CH105/RTS/67	SEC.CHAIR	EACH	YACY/YY	55	//0	3	__/__/__	____
CH105/RTS/68	EXEC. CHAIR	EACH	YACY/YY	R5	03/12/77	10	__/__/__	____
TAB022	TABLE 22IN D	EACH	UNK.	FL/W	//0	4	__/__/__	____
WS2444/H/7889	WORK STAND 2	EACH		GV-1	02/02/77	20	__/__/__	____

5 LISTINGS FROM THE TEST DATA FILES

5-5 DETAILED INVENTORY REPORT

The Detailed Inventory Report is a listing of all data on file for each inventory item.

```
                              INVENTORY MANAGEMENT                          PAGE 1
                           DETAILED INVENTORY REPORT
                                   --------
                                 AS OF 10/10/78


* PRODUCT CODE          : 1234567890123456
* ITEM DESCRIPTION      : BAY DOOR
* CURRENTLY ON HAND     : 4

  ITEM UNITS            : EACH              AVERAGE COST          :     $66.00
  CURRENT PRICE         :     $91.50        Y-T-D SALES           :  $7,000.00
  PREV. BALANCE         : 4                 DATE OF PREV. BAL.    : 05/01/77
  NUMBER OF SALES       : 3                 NUMBER OF RETURNS     : 0
  NUMBER RECEIVED       : 3                 NUMBER ON ORDER       : 3
  DATE OF ORDER         : 05/15/77          REORDER LEVEL         : 2
  REORDER QUANTITY      : 6                 LEAD TIME (DAYS)      : 40
  MINIMUM BALANCE       : 1                 MAXIMUM BALANCE       : 12
  DATE OF LAST SALE     : 06/01/77          DATE LAST PHYS. INV.: 04/01/77
  Y-T-D SOLD            : 9                 VENDOR ID             : STANFFFF
  VENDOR ITEM CODE NO.: 103301-789341       LOCATION OF ITEM      : DD34

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

* PRODUCT CODE          : 15A-1234567-0
* ITEM DESCRIPTION      : 15 AMP POWER STRIP
* CURRENTLY ON HAND     : 7

  ITEM UNITS            : PAIR              AVERAGE COST          :     $32.00
  CURRENT PRICE         :     $55.00        Y-T-D SALES           :    $500.00
  PREV. BALANCE         : 13                DATE OF PREV. BAL.    : 04/01/77
  NUMBER OF SALES       : 17                NUMBER OF RETURNS     : 3
  NUMBER RECEIVED       : 8                 NUMBER ON ORDER       : 3
  DATE OF ORDER         : 05/01/77          REORDER LEVEL         : 3
  REORDER QUANTITY      : 8                 LEAD TIME (DAYS)      : 30
  MINIMUM BALANCE       : 2                 MAXIMUM BALANCE       : 20
  DATE OF LAST SALE     : 06/01/77          DATE LAST PHYS. INV.: 04/01/77
  Y-T-D SOLD            : 9                 VENDOR ID             : SPS-RIT
  VENDOR ITEM CODE NO.: 15103-34A15         LOCATION OF ITEM      : S1

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

* PRODUCT CODE          : 8A-1234567-00
* ITEM DESCRIPTION      : 8 AMP POWER STRIP
* CURRENTLY ON HAND     : 2

  ITEM UNITS            : PAIR              AVERAGE COST          :     $12.00
  CURRENT PRICE         :     $22.00        Y-T-D SALES           :    $220.00
  PREV. BALANCE         : 4                 DATE OF PREV. BAL.    : 05/01/77
  NUMBER OF SALES       : 4                 NUMBER OF RETURNS     : 0
  NUMBER RECEIVED       : 2                 NUMBER ON ORDER       : 4
  DATE OF ORDER         : 06/01/77          REORDER LEVEL         : 2
  REORDER QUANTITY      : 6                 LEAD TIME (DAYS)      : 30
  MINIMUM BALANCE       : 1                 MAXIMUM BALANCE       : 15
  DATE OF LAST SALE     : 05/29/77          DATE LAST PHYS. INV.: 04/01/77
  Y-T-D SOLD            : 10                VENDOR ID             : SPS-RIT
  VENDOR ITEM CODE NO.: 810399-999          LOCATION OF ITEM      : S2

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

5-6 ANALYSIS BY COST

The Analysis By Cost Report shows the extended and proportionate cost of each item in inventory.

INVENTORY MANAGEMENT PAGE 1
ANALYSIS BY COST OF INVENTORY
AS OF 10/10/78

RANK	PRODUCT CODE	DESC.	UNITS	UNIT COST PER UNIT	UNIT COST TOTAL	CUMULATIVE COST	% OF COST
1	CH105/RTS/68	EXEC. CHAI	58	150.00	8,700.00	8,700.00	60.39
2	CH103-RT4572111	SIDE ARM C	61	120.00	7,320.00	16,020.00	50.81
3	WS2444/H/7889	WORK STAND	48	111.00	5,328.00	21,348.00	36.99
4	BD 43124-67TT	BAY DOOR	7	45.00	315.00	21,663.00	2.19
5	1234567890123456	BAY DOOR	4	66.00	264.00	21,927.00	1.83
6	CH105/RTS/67	SEC.CHAIR	2	125.00	250.00	22,177.00	1.74
7	15A-1234567-0	15 AMP POW	7	32.00	224.00	22,401.00	1.55
8	CASTER-SINGLE	CASTER	8	19.33	154.64	22,555.64	1.07
9	8A-1234567-00	8 AMP POWE	2	12.00	24.00	22,579.64	0.17
10	TAB022	TABLE 22IN	-84	44.00	-3,696.00	18,883.64	-25.66
11	C/YT U&R-89	CRT DOUBLE	-20	223.89	-4,477.80	14,405.84	-31.08

5 LISTINGS FROM THE TEST DATA FILES

5-7 SAMPLE CUSTOMER RECEIPT

The following is a customer receipt generated by the Cash Register Function of the Point of Sales program.

```
                INVENTORY MANAGEMENT
                     10/10/78

SOLD TO:                                  RECEIPT 0001
   NAME _____________________________________________
   ADDRESS __________________________________________
   CITY _____________________ STATE _____________

SOLD BY: _____________________________________________
CASH___COD___CHARGE___ON ACCT___OTHER___

QUAN    PRODUCT CODE          PRICE      AMOUNT
   2 15A-1234567-0          $55.00     $110.00
   3 1234567890123456       $91.50     $274.50
   1 CH103-RT4572111       $139.99     $139.99
                                       ---------
                     SUB TOTAL         $524.49
                     4.825% TAX         $25.31
                                       ---------
                         TOTAL         $549.80
```

5 LISTINGS FROM THE TEST DATA FILES

5-8 SAMPLE RETURN RECEIPT

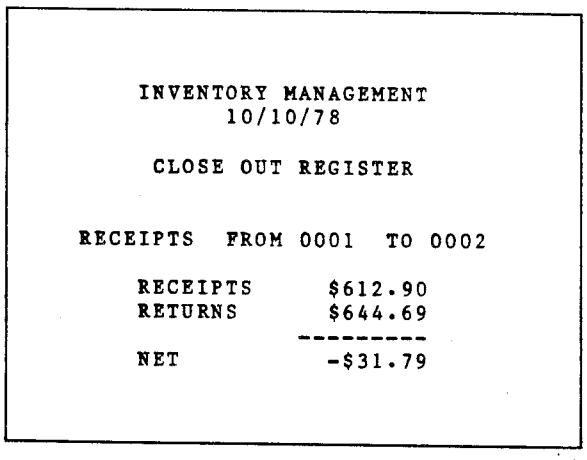
The following is a sample returned item receipt generated using the Returned Items Function of the Point of Sales program.

```
                INVENTORY MANAGEMENT
                     10/10/78

RETURNED BY:
   NAME _____________________________________
   ADDRESS __________________________________
   CITY _____________ STATE _____________

CREDITED BY: _____________________________

QUAN    PRODUCT CODE        PRICE     AMOUNT

  13 TAB022                $46.99    $610.87

                      5.537% TAX      $33.82
                                     ---------
                         RETURN       $644.69
```

5 LISTINGS FROM THE TEST DATA FILES

5-9 CLOSE OUT REGISTER REPORT

The Close Out Register Report includes cash receipts, return credits, and net cash.



INVENTORY MANAGEMENT
10/10/78

CLOSE OUT REGISTER

RECEIPTS FROM 0001 TO 0002

RECEIPTS	$612.90
RETURNS	$644.69
NET	-$31.79

5-10 END OF PERIOD REPORT

The End of Period Report lists the totals at the end of the period.

INVENTORY MANAGEMENT
END OF PERIOD REPORT
AS OF 10/10/78

PAGE 1

PRODUCT CODE	DESC.	NEW BAL	OLD BAL	DIF	----YEAR-TO-DATE----- SALES	COST	GROSS PROFIT
1234567890123456	BAY DOOR	4	4	0	7,000.00	594.00	6,406.00
15A-1234567-0	15 AMP POWER S	7	13	-6	500.00	288.00	212.00
8A-1234567-00	8 AMP POWER ST	2	4	-2	220.00	120.00	100.00
BD 43124-67TT	BAY DOOR	7	3	4	900.00	315.00	585.00
C/YT U&R-89	CRT DOUBLE WIN	-20	7	-27	68.00	671.67	-603.67
CASTER-SINGLE	CASTER	8	10	-2	700.00	444.59	255.41
CH103-RT4572111	SIDE ARM CHAIR	61	40	21	4,000.00	6,000.00	-2,000.00
CH105/RTS/67	SEC.CHAIR	2	3	-1	700.00	750.00	-50.00
CH105/RTS/68	EXEC. CHAIR	58	10	48	500.00	900.00	-400.00
TAB022	TABLE 22IN DEE	-84	4	-88	788.86	2,640.00	-1,851.14
WS2444/H/7889	WORK STAND 24X	48	20	28	0.00	0.00	0.00
			TOTAL		15,376.86	12,723.26	2,653.60

5 LISTINGS FROM THE TEST DATA FILES

5-11 YEAR TO DATE REPORT

The Year-to-Date Report includes sales, costs, and gross profit for the year to date.

INVENTORY MANAGEMENT
YEAR TO DATE REPORT
AS OF 10/10/78

PAGE 1

PRODUCT CODE	DESC.	AVERAGE COST	PRICE	YEAR TO DATE SALES	YEAR TO DATE #SOLD	GROSS PROFIT
1234567890123456	BAY DOOR	66.00	91.50	7,000.00	9	6,406.00
15A-1234567-0	15 AMP POW	32.00	55.00	500.00	9	212.00
8A-1234567-00	8 AMP POWE	12.00	22.00	220.00	10	100.00
BD 43124-67TT	BAY DOOR	45.00	77.00	900.00	7	585.00
C/YT U&R-89	CRT DOUBLE	223.89	323.78	68.00	3	-603.67
CASTER-SINGLE	CASTER	19.33	31.55	700.00	23	255.41
CH103-RT4572111	SIDE ARM C	120.00	140.00	4,000.00	50	-2,000.00
CH105/RTS/67	SEC.CHAIR	125.00	159.99	700.00	6	-50.00
CH105/RTS/68	EXEC. CHAI	150.00	200.99	500.00	6	-400.00
TAB022	TABLE 22IN	44.00	60.00	788.86	60	-1,851.14
WS2444/H/7889	WORK STAND	111.00	277.89	0.00	0	0.00
			TOTAL	15,376.86	183	2,653.60

5-12 SAMPLE LABELS

The following are sample tags printed using the Label Function of the Inventory Update Program.

```
15 AMP POWER STRIP                      15 AMP POWER STRIP
15A-1234567-0    $ 55                   15A-1234567-0    $ 55

15 AMP POWER STRIP                      15 AMP POWER STRIP
15A-1234567-0    $ 55                   15A-1234567-0    $ 55

15 AMP POWER STRIP                      15 AMP POWER STRIP
15A-1234567-0    $ 55                   15A-1234567-0    $ 55

15 AMP POWER STRIP                      15 AMP POWER STRIP
15A-1234567-0    $ 55                   15A-1234567-0    $ 55

15 AMP POWER STRIP                      15 AMP POWER STRIP
15A-1234567-0    $ 55                   15A-1234567-0    $ 55

15 AMP POWER STRIP                      15 AMP POWER STRIP
15A-1234567-0    $ 55                   15A-1234567-0    $ 55

15 AMP POWER STRIP                      15 AMP POWER STRIP
15A-1234567-0    $ 55                   15A-1234567-0    $ 55

15 AMP POWER STRIP                      15 AMP POWER STRIP
15A-1234567-0    $ 55                   15A-1234567-0    $ 55

15 AMP POWER STRIP                      15 AMP POWER STRIP
15A-1234567-0    $ 55                   15A-1234567-0    $ 55

15 AMP POWER STRIP                      15 AMP POWER STRIP
15A-1234567-0    $ 55                   15A-1234567-0    $ 55
```

APPENDIX A
SYSGEN WORKSHEET

SYSGEN WORKSHEET

STEP	PROMPT/DISPLAY	RESPONSE
(1)	WHICH UTILITY WOULD YOU LIKE TO RUN?	S Y S G E N
(2)	IN WHICH DRIVE HAS DISK BEEN MOUNTED?	1 OR 2
(3)	DISK IS MOUNTING	
(4)	*** PROGRAM TO INITIALIZE THE #INV.SYS PARAMETERS ***	
	*** NOTE: THE DEFAULT VALUE IS THE VALUE ASSUMED IF YOU HIT 'RETURN' WITH NO ENTRY FOR THAT ITEM	
(5)	SYSTEM NAME	INVENTORY MANAGEMENT
(6)	SYSTEM PASSWORD	
(7)	DISK TITLE/VERSION	
(8)	CREATION DATE	
(9)	LAST ACCESS DATE	
(10)	TERMINAL STATUS PORT	
(11)	TERMINAL SENSE SWITCH	
(12)	CLEAR SCREEN CODES	
(13)	TERMINAL WIDTH	
(14)	TERMINAL NULLS	
(15)	PRINTER TYPE CODE	
(16)	PRINTER STATUS PORT	
(17)	PRINTER SENSE SWITCH	
(18)	TOP OF FORMS CODE (S)	
(19)	PRINTER WIDTH	
(20)	PRINTER NULLS	
(21)	"#INVFILE" DRIVE NUMBER	
(22)	BASE ASSEMBLY ADDRESS	
(23)	DISK TYPE	
(24)	COMPANY NAME	
(25)	ADDRESS 1 OF 2	
(26)	ADDRESS 2 OF 2	
(27)	DATA FILE PASSWORD	Not Applicable

APPENDIX B

GLOSSARY OF TERMS AND DEFINITIONS

Backup	1. Systems that take over when the primary system is down for various reasons. 2. Also used to designate the storage of data files (either on paper or in machine-readable form) which are to be used in case the original data files become lost or incorrect.
BASIC	Beginner's All-purpose Symbolic Instruction Code. A common high-level computer programming language.
Bit	The smallest unit of measure in a computer, having only values of either zero (0) or one (1).
Byte	An IBM developed term used to indicate a specified number of consecutive bits treated as a single entity. A byte is most often considered to consist of eight bits which as a unit can represent one character of information.
Character	One of a set of elements which may be arranged in ordered groups to express information. Each character has two forms: (1) a man-intelligible form, the graphic, including the decimal digits 0-9, and letters A-Z, punctuation marks, and other formatting and control symbols; and (2) its computer-intelligible form, the code, consisting of a group of binary bits.
Command	1. The prompt or display within a program which specifies the operation to be performed. 2. For microprocessors, an electronic pulse, signal or set of signals to start, stop or continue some operation.

Computer	An automatic electronic machine for performing calculations and data processing.
Configuration	Relative arrangement of parts. A set of interconnected hardware forming a computer system.
Central Processing Unit (CPU)	The primary functioning unit of any computer system. Its basic architecture consists of storage elements called registors, computational circuits designed as the Arithmetic-Logic Unit (ALU), the Control Block and Input-Output ports.
Credits	An entry to an account constituting an addition to a revenue, net worth, or liability account. A deduction from an expense or asset account.
CRT	Cathode Ray Tube. A term used to commonly denote a video terminal. See also Screen, Video Unit.
Data Entry	The act of providing the computer with information for processing, such as entering transactions for a General Ledger System or items for an Inventory Control System.
Data File	See File.
Debits	A record of an indebtedness. An entry to an account constituting an addition to an expense or asset account or a deduction from a revenue net worth, or liability account.
Detail Account	In the General Ledger, the account to which the journal transactions are posted (entered). Also used to denote those transactions after they have been posted.

Diskette	A storage media mode of flexible magnetic material and resembling a 45-RPM phonograph record. Also referred to as a disk or a floppy.
Disk Unit (Drive)	The electronic mechanism and housing used for the storage and retrieval of information on diskettes.
Echo Check	Refers to various error control techniques wherein the receiving terminal or computer returns the original message to the sender to verify that the message was received correctly.
Files	A collection of records on the diskette, grouped together under a file name.
Floppy Disk	A disk drive that uses diskettes as a storage media. (See Disk)
Format	The act of preparing a new diskette for use by the system, or reinitializing an old disk for re-use. Formatting destroys all data on the diskette by 'clearing' it off. All new diskettes must be formatted before they can be used.
Gross Pay	The total amount of money the employee is due at the end of each pay period before deductions are taken out.
Hard Disk	A disk drive that uses a hard plastic platter as a storage media. There may be several platters in the disk at once. All or part of the platters may be removable. (See Disk)

Invoice	A document from the vendor that describes the amount and terms of money owed as a result of a purchase from the vendor.
Indexed Sequential Access Method (ISAM)	Rather than directly using the file management routines available in the Disk BASIC software, the system uses an intermediate set of file-manipulation subroutines which serve as a software interface between the applications programs and the Disk BASIC routines. This ISAM (Indexed Sequential Access Method) is a file structuring technique which allows a file to be processed either sequentially or in a random (direct) fashion. The defining characteristic of ISAM files is that the records are arranged alphabetically according to a key field contained in each record. Indexes of keys are maintained to provide direct or sequential access, with the ISAM software subroutines performing the necessary mapping functions to associate a key with its physical disk address.
Mask	A pattern of characters printed on the printer and used to align forms in the printer. Also a bit pattern that is And'ed or Or'ed with an input port to detect the presence of one or more bits.
Memory	A data storage medium. Internal memory is the program and data working memory within the computer itself. External memory is a diskette, for example.
MENU	A CRT video display showing the program selections options available to the operator.
Microprocessor	The semiconductor central processing unit (CPU) contained usually on a single chip, and having the computer arithmetic logic unit and the control logic unit.
MITS Computer	A computer designed and manufactured by Pertec, Inc.
Modular Description	The breaking down of a program into logical units and the description of these units by what they do and how they interact with other modules.

Operating System	An integrated collection of service routines for supervising the sequencing and processing of programs by a computer. Operating systems may perform debugging, input-output, machine accounting, MITS BASIC Operating System also includes the BASIC interpreter.
Output	Refers to information and data transferred from the internal storage of a computer to output devices or external storage.
Password	A code word initially assigned by the user which must be entered and verified by the computer before the computer will allow the operator to perform tasks.
Period	The time required for one complete cycle of a regular, repeating series of events, such as a month of an accounting period.
Peripheral	Units which work in conjunction with a computer but are not part of it, such as a video terminal or disk unit.
Posting	The act of transferring an entry or item from a book of original entry to the proper account in a ledger; the record in a ledger account resulting from the transfer of an entry or item from a book of original entry.
Processing	The programmed act of computation and control in order to change input data to output data.
Program	A set of instructions arranged in a proper sequence for directing a digital computer in performing a desired operation or operations (e.g., the solution of a mathematical problem or the collation of a set of data).

Prompt	The computer act of displaying a message to the operator and then waiting for the operator to respond to that message with a keyboard entry.
Query	To question. The computer may question the operator for the next step, or the operator may question the computer for information.
Record	Refers to a logical collection of fields with each field designating a single piece of information. See also Field, File.
Register	A listing of transactions that have occurred. Also a storage location within the central processing unit of the computer.
Screen	Being, relating to, or used in the transmission or reception of video data using a television-like apparatus. See also CRT, Video Unit.
Simulate	To represent the functioning of a device, system, or computer program by another, i.e., to represent the functioning of one computer by another, to represent the behavior of a physical system by the execution of a computer program, to represent a biological system by a mathematical model.
Software	The term software was invented to contrast with the "iron" or hardware of a computer system. Software items are programs, languages, and procedures of a computer system.
Storage	1. The act of storing information. 2. Sometimes called a memory. Any device in which information can be stored. 3. Pertaining to a device into which data can be entered, in which it can be held, and from which it can be retrieved at a later time.
Syntax	1. Refers to the relationship among characters or groups of characters, independent of their meaning or the manner of their interpretation and use. 2. The rules governing the structure of a language.
System	As used in some computing installations, the system includes, and defines the interrelationship of, hardware, service routines, processing procedures and accounting methods.

System Console	The main peripheral device (terminal) through which the BASIC operating system and the operator communicate.
Terminal (video, hard copy)	A peripheral device having a keyboard for data entry and a printer and/or video unit for data output.
Transaction	A single act or item of business, such as the selling of a unit of inventory.
Utility Program	Programs that perform service functions and whose purpose is to support the regular system programs.
Variable	Any factor or condition which can be measured, altered, or controlled. A quantity that can assume any of a given set of values.
Vendor	A person or company from which products or services are purchased.
Video Unit	A television-like unit used for data output. See also CRT, Screen.
Voucher	A record that describes an amount of money due to a vendor.
Window	A period of time between two dates, including the Start date and the end date.