

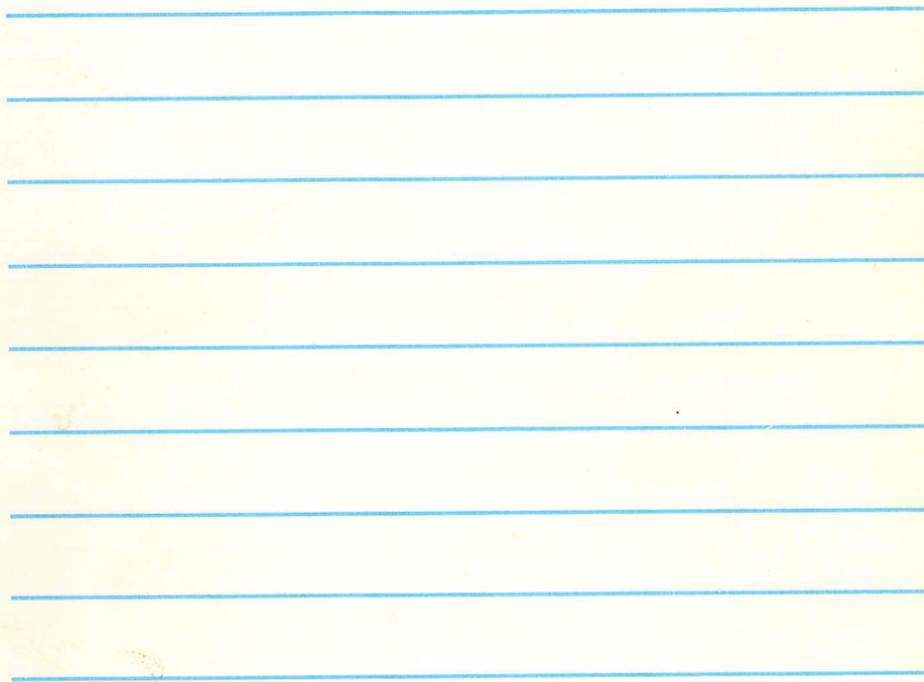
**TIMEWORKS**<sup>®</sup>

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**User's Manual**

# **Data Manager 2**<sup>™</sup>

For **COMMODORE 64** Computers  
(64K, 40-Column)



## **Timeworks' Customer Support Plan**

**Timeworks'** Telephone Consulting Service is available to all Registered users at no charge to support your installation and ongoing operations. To become eligible for this service, you must complete and return the enclosed Software Registration Card.

The answers to almost all of your questions can be found in your manual. To save you time, please read it thoroughly before calling our Help Line. If your question concerns your hardware, contact your computer, disk drive, or printer manufacturer first. If your question concerns the program, we will be happy to receive your call at one of the following numbers during normal business hours (9 a.m. to 5 p.m. central standard time).

Customer Support Help Line: (312) 948-9208.

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Update or Replacement Information: (312) 948-9206.

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If you write to us instead, be sure to include a phone number where you can be reached during the day.

If you've enjoyed this program, try these other, equally stimulating programs from Timeworks, Inc.:

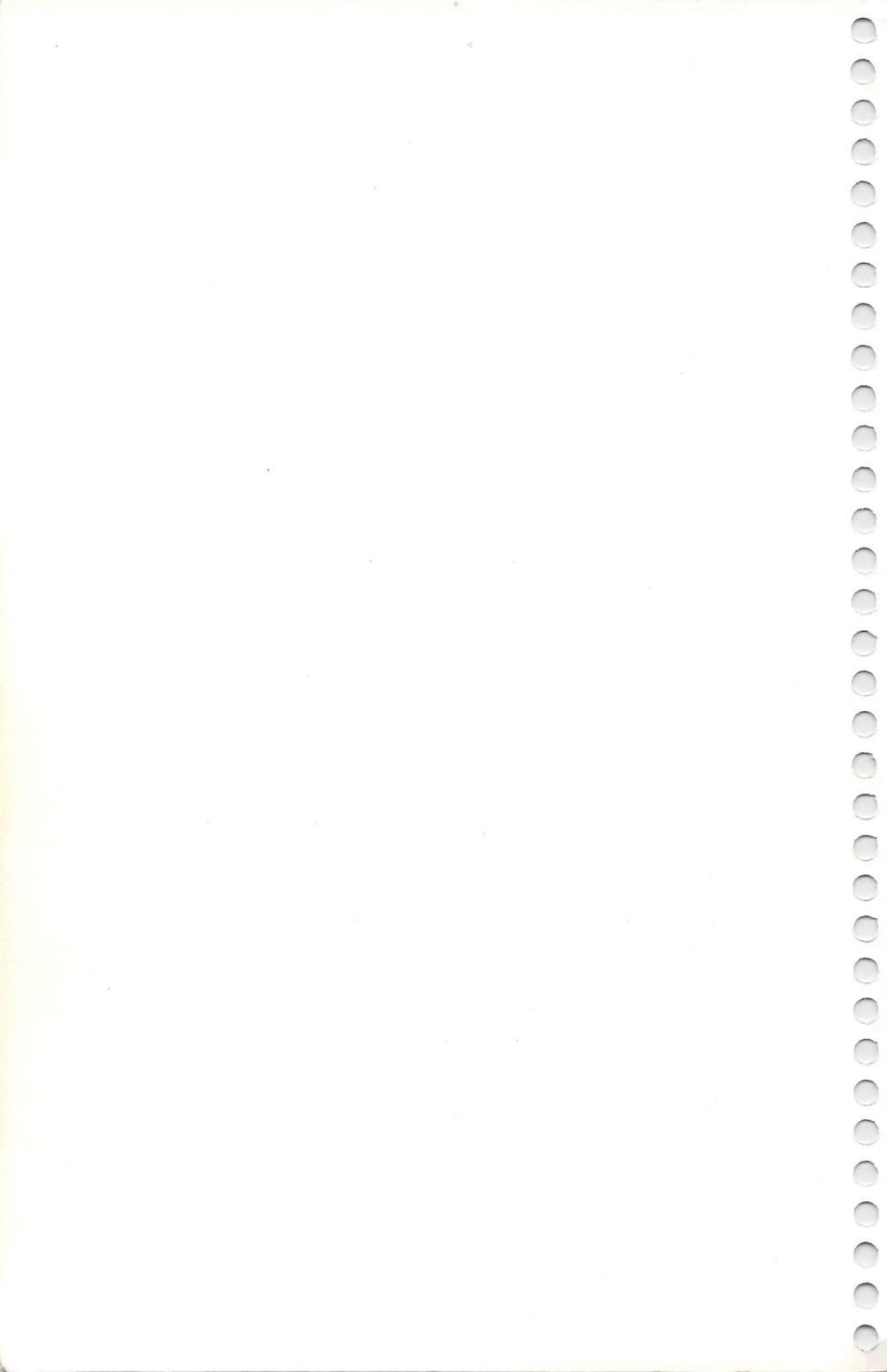
<b>Cat. No.</b>	<b>Program</b>
<b>Educational</b>	
6103	Cave of the Word Wizard
<b>Personal Improvement</b>	
6105	The Evelyn Wood Dynamic Reader
<b>Home Management</b>	
6352	Word Writer 3
6353	Swiftax
6354	SwiftCalc
6355	Sylvia Porter's Your Personal Financial Planner
6360	Sideways
6361	Partner 64

# TIMWORKS<sup>®</sup>

## User's Manual

# Data Manager<sup>2</sup><sub>T.M.</sub>

For COMMODORE 64 Computers  
(64K, 40-Column)



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# I. Introduction

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Just think how nice it would be to look up someone's name and address without having to look through an address book, or how much faster and easier it would be to find specific information from a single floppy disk, instead of having to search through mounds of paper. Better yet, think how much time could be saved by tabulating information with a computer instead of spending hours doing calculations manually. DATA MANAGER 2 does this work for you. Your data is stored on space-saving disks – no more bulky, messy files. DATA MANAGER 2 searches and displays data quickly, easily, and most of all, painlessly. DATA MANAGER 2 features:

- Quick access to important information, which can be retrieved and printed by category, name, index code, date range, amount range, or any category of information stored in the system.
- TIMEWORKS' exclusive X-SEARCH allows you to cross-search any of your categories as many times as needed to locate specific groups of records.
- TIMEWORKS' exclusive X-SORT (an advanced indexed sort system) arranges your stored records in increasing or decreasing order, alphabetically, chronologically (by date), or numerically.
- TIMEWORKS' exclusive X-CHART enables you to break down statistical information by up to ten indexed categories of your choice and view your results graphically.
- DATA MANAGER 2 calculates and prints out the sum, average, and standard deviation for any numerical field and produces frequency charts (bell graphs) using that data.

## Introduction (con't.)

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- Mathematical calculations, payroll calculations, price revisions, and cost estimates are just a few of the calculations that can be performed using DATA MANAGER 2.
- Quick and easy deletion of obsolete information, which maximizes your storage efficiency.
- A menu-driven program with full prompting and audio cuing (beeping).
- A manual written in easy-to-understand English, with plenty of examples to eliminate guesswork.
- Password protection, which prevents unauthorized access to your confidential data.
- A special backup feature, which generates extra backup copies of your recorded information.

When DATA MANAGER 2 is interfaced with TIMEWORKS' WORD WRITER, you can:

- Maintain and print out name and address lists.
- Create, address, and print individualized form letters.
- Generate and print customized data reports, which can be incorporated into text produced by the WORD WRITER.
- Transfer and print text information onto labels and tags.
- Calculate numerical data from one column to the next, giving this program spreadsheet capabilities.

## II. System Operation and Startup

---

### A. Loading DATA MANAGER 2 from GEOS

To load DATA MANAGER 2 while using the GEOS operating system:

- 1) Insert your DATA MANAGER 2 program disk into your disk drive. (If you are using a dual drive, you must place your disk in drive 0; if you are using two single drives, place your disk in drive 8.)
- 2) Use the mouse to move the arrow on your screen to the disk drive icon, and click the mouse button.
- 3) The disk directory (the icons of the files on your disk) will appear on your screen. Only those files that can be loaded at this time will appear. Use the mouse to select the icon for the main program (the upper left icon) and double-click the mouse button. The program will load into your computer.

### B. Loading DATA MANAGER 2 from BASIC

- 1) Turn on your computer, disk drive, and printer.
- 2) Insert the program disk into the disk drive so that side 1 is facing up.
- 3) Type `LOAD"DM2",8` and press **RETURN**. The computer will search for and load DATA MANAGER 2.
- 4) After `READY` appears on the screen and the **■** is flashing, type `RUN` and then press **RETURN**.
- 5) You are now ready to practice with DATA MANAGER 2. Follow the instructions in section C to do so.

## C. Loading the Sample Data

- 1) The DATA MANAGER 2 program disk has sample data on the back side of the disk. Remove the disk from the drive. Turn it over and insert the disk so that side 2 is facing up. Press **RETURN**.

**NOTE:** When the prompt **INSERT DATA DISK THEN PRESS RETURN** appears on your screen, you have an opportunity to change the device address of your disk drive. This program is set up to operate with a disk drive with an address of 8. If you are using a dual disk drive or a drive using an address of 9, you should tell the computer the address of your disk drive. (For more information on device addresses, consult your disk drive manual.)

To change the device address, press the **G** key and the **D** key at the same time. You will see the prompt **DRIVE HOLDING THE DATA? (0/1/8/9)**. Enter the device address of the disk drive that will hold your data disk. Then you will see the prompt **DRIVE HOLDING THE PROGRAM? (0/1/8/9)**. Enter the device address of the disk drive that will hold the program disk. (If you are using a single drive, enter the same response to both prompts.)

- 2) The computer will then read the X-SORT sequence. The X-SORT sequence tells the computer the order in which your data is to be presented.

- 3) After the sample data has been loaded into your computer, turn to Section V, "DATA MANAGER 2 Command Instructions", of this manual. Using the sample data, experiment with each menu item until you feel confident enough to manage your own data. You will find special instructions in each section (printed in *italic type*) for working with the sample data and these menu items.

When you are finished working with the sample data, turn to Section III, "Initializing A Data Disk", to create your DATA MANAGER 2 data disk before entering your own information into the system.



### III. Initializing a Data Disk

---

Before you store any data using this program, you must design a data format to house that data. Just as an architect designs a home to house people and their belongings, you must design a format to hold your data. This process is called "initialization".

A format consists of data information entry lines, called fields. Each line, or field, is titled to tell you what data is to be placed in that field. You specify the length and location of each field in your format. Section III-C shows you a sample format. Also, see section II-C for information on loading and viewing the sample format and data that is stored on your program disk.

#### A. Deciding On A Format

Now you must decide what information you want to store in your data file. Then you can design the record format that will hold that information. Here are a few things to remember while you're thinking about the record format.

- 1) All records in a file contain the same format.
- 2) Each record may contain up to 20 lines (fields).

**NOTE:** You may use a field to hold more than one type of information. For example, instead of using three fields for city, state, and zip code, you may combine the information into one field: 6) C/S/Z: Chicago, IL 60606

- 3) Each record may contain up to 230 bytes (characters) of information.

## Initializing a Data Disk (con't.)

---

- 4) Each field should be given a title corresponding to the data that will be stored in that field. Titles can be up to 15 characters long. The longer the title, the shorter the field space for information. Field storage = 32 characters, minus the length of the title.
- 5) All fields must be classified for the type of data being stored in that location: characters, dates, or numbers. Character fields hold characters, numbers, and punctuation. Date fields contain dates (01/09/09 or 01-09-09 means January 9, 1909). Numeric fields contain numbers and one decimal point.
- 6) Each field must be given a specific length. Lines that you designate to hold characters may have a maximum length of 32, dates have a set length of 8, and numbers have a maximum length of 9.

At a Glance:

Maximum Number of Fields: 20

Maximum Field Length (in characters):

Characters: 32

Dates: 8

Numbers: 9

Titles: 15

Maximum Record Length: 230 characters

Maximum Number of Records: 2,000 per disk (determined by record length)

## Initializing a Data Disk (con't.)

---

Now it's time to create your format on paper. While you were practicing with DATA MANAGER 2, you saw the format of our sample data file. Section III-C shows how a sample record format looks after it was created on paper.

To create your format, take a piece of lined paper. After you decide on a number of fields for your format, number the lines of your paper. Title each line for the information it will hold and classify each as a number, date, or character field. Then assign a length for each using the information in this section. You are now ready to enter your format on the computer.

### B. Loading the Initialization Program

- 1) Turn on your computer, disk drive, and monitor.
- 2) Insert the program disk into the disk drive so that side 1 is facing up.
- 3) Type LOAD"INT",8 and press **RETURN** (GEOS users, select the INT icon).
- 4) When the word READY appears on the screen and the ■ is flashing, type RUN and press **RETURN**. You are now ready to create your DATA MANAGER 2 data file.

### C. Setting Up the Format On the Computer

Once the DATA MANAGER 2 INT program is loaded into the computer, the entry screen will read:

\*\*\*DATA MANAGER 2 INITIALIZATION\*\*\*

# Initializing a Data Disk (con't.)

The small boxed-in area at the bottom of your screen is the prompt area. Follow the instructions below, and the prompts in the prompt area, and you will create your data file quickly and easily.

- 1) Press **C** to continue.
- 2) The screen will show 20 open fields and the number of bytes (characters) remaining. Enter the number of fields for your format and press **RETURN**.
- 3) Enter the field title for field 1. Press **RETURN**.
- 4) Next you will be prompted to classify field 1. If the field is to hold a character string, press **C** and press **RETURN**. If the field is to hold a date, press **D** and press **RETURN**. If the field is to hold a number, press **N** and press **RETURN**.
- 5) If you chose **C** or **N**, you must now specify the length of the field. (Date fields are always 8 characters long.) Type in the desired length, and press **RETURN**.

**NOTE:** When the number of bytes remaining reaches zero, any remaining open lines will be deleted. If this happens to you, don't worry. Move on to section D, "Making Changes to Your Format", and you will be able to add more lines.

- 6) Repeat steps 3-5 until you have titled, classified, and specified the length of each field. When finished, the screen should look similar to your piece of lined paper.

# Initializing a Data Disk (con't.)

---

## SAMPLE RECORD FORMAT

1)	INDEX CODE 1	CHARACTERS	8
2)	INDEX CODE 2	NUMBER	9
3)	INDEX CODE 3	DATE	8
4)	CUSTOMER #	CHARACTERS	15
5)	NAME	CHARACTERS	28
6)	ADDRESS	CHARACTERS	20
7)	CITY	CHARACTERS	20
8)	STATE	CHARACTERS	3
9)	ZIP	CHARACTERS	6
10)	CONTACT	CHARACTERS	25
11)	TELEPHONE	CHARACTERS	12
12)	EXT	CHARACTERS	6
13)	DISC TERMS	NUMBER	4
14)	CREDIT LIMIT	NUMBER	6
15)	TAX?	CHARACTERS	1
16)	ACCT BAL	NUMBER	9
17)	CREDIT BAL	NUMBER	9
18)	MTD INVD	NUMBER	9
19)	MTD RCVD	NUMBER	9
20)	LAST ACTION	DATE	8

## D. Making Changes To Your Format

The DATA MANAGER 2 INITIALIZATION program allows you to make changes in your record format before the data file is actually created. If you go beyond the record limits, the computer will not create the data disk until the format is within the record limits.

The screen prompt will read CHANGES?(Y/N). If you wish to make changes, type **Y**, press **RETURN**, and proceed to sections E, F, and G. If you have no changes, type **N**, press **RETURN**, and proceed to section H, "Entering a Password."

## E. Adding A Field To Your Format

A new field may be added as long as your format contains less than 20 fields and there are still some bytes remaining for the new field's length. When you see the prompt ADD/DELETE/MODIFY(A/D/M), type **A** and press **RETURN**. Then type in the *total* number of fields you want your records to contain and press **RETURN**. The computer will then add the open fields that you requested. You will be instructed to title, classify, and specify the length of each open field. (Refer to section III-C, "Setting up the Format on the Computer.")

## F. Deleting A Field From Your Format

You may delete any field you wish. When a field is deleted, each field below the deleted field will move up to fill the vacancy created. When you see the prompt ADD/DELETE/MODIFY?(A/D/M), press **D** and press **RETURN**. Then enter the field number you wish to delete and press **RETURN**.

## Initializing a Data Disk (con't.)

---

The field you chose will be deleted and the screen prompt will now read CHANGES?(Y/N). To make more changes, type **Y** and press **RETURN**. Otherwise, type **N**, press **RETURN**, and move on to section H, "Entering a Password."

### G. Modifying An Existing Field

All fields may be modified as long as the changes meet the data file requirements. Field names, classifications, and lengths may be changed while in the field modification mode.

**NOTE:** When field classifications are changed to dates, the lengths will be set at 8 bytes automatically. When field classifications are changed to numbers, the lengths will be changed to 9 bytes or less (depending on the number of bytes remaining).

- 1) The screen prompt should read ADD/DELETE/MODIFY?(A/D/M). To modify a field, type **M** and press **RETURN**.
- 2) Enter the number of the field you wish to modify and press **RETURN**.
- 3) The screen prompt should read TITLE, CLASS OR LENGTH?(T/C/L).
  - To change the field title, press **T**. Enter the new field title and press **RETURN**.

# Initializing a Data Disk (con't.)

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- To change the field classification, press **C**. If you want the field to hold a character string, type **C** again and press **RETURN**. If you want the chosen field to hold a date, enter **D** and press **RETURN**. If you want the chosen field to hold a number, enter **N** and press **RETURN**.
  - To change the field length, press **L**. Enter the length you desire and press **RETURN**.
- 4) The screen prompt should read **CHANGES?(Y/N)**. To make more changes, enter **Y** and press **RETURN**. If you are satisfied with your record format, type **N**, press **RETURN**, and move on to section H, "Entering a Password."
- 5) If you typed **Y** in step 4, the screen prompt should read **ADD/DELETE/MODIFY?(A/D/M)**. To add a field, follow the instructions on adding a field. To delete a field, follow the instructions on deleting fields. To make more modifications, go back to section D, "Making Changes."

## H. Entering A Password

To prevent unauthorized access to your data file, **DATA MANAGER 2** lets you create your own password. The password can be from 1 to 8 characters in length. (You may change your password in the general information section of the program. See section V-B.) When asked to enter your password, enter a word you will remember easily and press **RETURN**. Your password is now set. Don't forget it!

# Initializing a Data Disk (con't.)

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**NOTE:** When you enter your password, you will see a row of asterisks on your screen. Do not be alarmed. This is just a safety feature that protects your password so that no one can read it over your shoulder.

## I. Creating Your Data Disk

Now it's time to actually create your data file. Simply follow the disk placement prompts on your screen. If all instructions were followed correctly, the data file with the record format you chose will be created on your disk. (This will take approximately 8 minutes.)

**NOTE:** During initialization, all previous data on the data disk will be erased when the new files are created.

## J. Creating Additional Data Disks

With the DATA MANAGER 2 INITIALIZATION program, you can create as many data disks as you wish. Your new data disk can have the same record format or a completely different format.

To create a new data disk with a new format, press **N** in response to the above prompt. Then press **RETURN**. You will now be able to create a new format following the steps in section A, "Deciding on a Format".

## Initializing a Data Disk (con't.)

---

To initialize another disk, type **Y** in response to the prompt, and press **RETURN**. Then go back to section I, "Creating Your Data Disk". If you do not wish to initialize another disk, press **N** and press **RETURN**.

Once all of your data disks have been created, you can enter your own data. Go to section V, "DATA MANAGER 2 Command Instructions".

## IV. Transferring Data From One Format to Another

---

Side 2 of your DATA MANAGER 2 program disk contains a special transfer program that allows you to modify a data format and transfer data from an old format to a modified format. With the transfer program, you can:

- Add fields to an existing format.
- Delete unwanted fields from a format.
- Change the title, classification, or length of your fields.
- Rearrange fields within the format.
- Create smaller “subfiles” from your main data disk and transfer them to other data disks.
- Combine two or more similar files on separate disks into one large file on one disk.
- Salvage most of your file from a moderately damaged data disk.

### A. Loading the Transfer Program

**NOTE:** See section II-B if you are using two disk drives or a dual drive. See section II-A if you are using GEOS.

- 1) Turn on your computer, disk drive, and monitor.
- 2) Insert your DATA MANAGER 2 program disk in the disk drive with side 2 facing up.
- 3) Type LOAD“TRANSFER”,8 and press **RETURN** (GEOS users, select the TRANSFER icon).

## Transferring Data From One Format to Another (con't.)

---

- 4) When the word **READY** appears, type **RUN** and press **RETURN**.

### B. Creating Your New Format

You will now be asked to insert a previously created data disk. Insert the disk that contains your old format. The format will then appear on the left side of your screen, and a new blank format will appear on the right side. You are now ready to create your new format.

- 1) Enter the number of fields you want to use in your new format (a number from 1 to 20).
- 2) To transfer data from a field in your old format to your new format, you must press **Y** for the next prompt. (If you are adding a field to your new format that didn't exist in the old format, press **N** and skip to step 5.)
- 3) Move the cursor to the field in your old format that you want to transfer to the new format, and press **RETURN**.
- 4) The title, classification, and length for the highlighted field will be moved to the next open position in your new format. You will be able to modify this information later.
- 5) If you pressed **N** in step 2, you will now be prompted to enter the title, classification, and length of your new field.
- 6) Repeat steps 1 through 5 until you have defined all of the fields in your new format.

# Transferring Data From One Format to Another (con't.)

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## C. Modifying Your Format

- 1) When you have specified information for all of the fields in your new format, you will see the prompt CHANGES?(Y/N). Press **Y** if you want to make any modifications to the new format. Press **N** if you are happy with your new format, and skip to section D.
- 2) Next you will see the prompt ADD/DELETE/MODIFY?(A/D/M).

Press **A** to add a field to your new format. You have a maximum of 20 fields to use. Then repeat steps 1 through 5 in section B to add new fields or to move old fields to your new format.

Press **D** to delete a field in the new format. Move the cursor to the field to be deleted, and follow the prompts.

**NOTE:** If you delete a field that you moved from your old format, the data for that field will NOT be transferred to the new format. You may want to re-select this field from the old format and place it in another position in the new format.

Press **M** to modify a field in the new format. Use the cursor to select a field to modify, and follow the prompts. (If you press E in response to the EXIT? prompt, you will return to the CHANGES? prompt.)

# Transferring Data From One Format to Another (con't.)

---

- 3) After you make your modifications, you will again see the prompt CHANGES?. When you have finished modifying your format, press **N** in response to this prompt.

## D. Transferring Your Data

- 1) Enter the number of the first record on your disk that you want to transfer.
- 2) In response to the next prompt, enter the number of the last record you want to transfer.
- 3) Insert your new data disk in the disk drive. This disk will be initialized, meaning all previous data on the disk will be erased. Follow the prompts on your screen to transfer your data to the new format.

## E. Merging Data into Your New Format

You will now have the opportunity to add new data to your format. Your display will show you information about your new data disk:

**Maximum Number of Records:** The total number of records that your new format will hold (2000 records maximum).

**Total Records Transferred:** The number of records that have been transferred to your new data disk. (Previously deleted or damaged records will not be transferred.)

**Remaining Record Positions:** The number of additional records you may transfer to your new data disk.

## Transferring Data From One Format to Another (con't.)

---

**Total Records to Transfer:** The total number of records that you have chosen to transfer to your new disk. Remember that damaged records will not be transferred, so you may find that the computer transfers fewer records than you specify.

- 1) In response to the prompt **MERGE ANOTHER DISK?(Y/N)**, press **Y** to transfer records from a second data disk. Follow the prompts and the instructions in section D to transfer records from this disk to your new data disk.
- 2) Continue transferring your records. You will be told if you use all available record positions.
- 3) When you have finished transferring records, press **N** in response to **MERGE ANOTHER DISK?(Y/N)**. Your general information and X-Sort sequence for this file will be updated on your disk.

### F. When You Have Finished Transferring Records

When you have finished working with the Transfer program, load the **DATA MANAGER 2** program using the instructions in section II-A of this manual. Then go on to section V and begin entering information in your newly created data format.



## V. DATA MANAGER 2 Command Instructions

Before using any of the following commands, load DATA MANAGER 2 using the instructions in section II. If you choose to load the sample data, follow the special instructions in *italic* type in this section to learn the program commands.

NOTE: Throughout your use of DATA MANAGER 2, whenever you want to return to the main menu, press the **SHIFT** and **CLR/HOME** keys at the same time.

### A. View/Modify the General Information

Menu item 3 allows you to view or modify DATA MANAGER 2 general information. It also lets you change the screen color. To change the general information, follow these steps:

- 1) When the menu appears on the screen, enter **3** and press **RETURN**.
- 2) The screen will now display general information about your data file. To make changes, type **Y** to the ITEM CHANGES? prompt, press **RETURN**, and move to the next instruction. If you do not wish to make changes, type **N** and press **RETURN**. Skip to step 6. *If you are using the sample data, press **Y**.*

NOTE: To print out your display, press the **C** key and type **Y** when the screen prompt reads IS YOUR PRINTER CONNECTED?.

# DATA MANAGER 2 Command Instructions (con't.)

---

- 3) The only items that you can change are 1-4. All others are updated automatically as you add, delete, or manipulate data. Type the number of the item you wish to change and press **RETURN**. *For the sample data, enter 3 and press **RETURN**.*
- 4) Enter your new information for this item and press **RETURN**. *For the sample data, enter today's date.*
- 5) The item should now be changed. Skip back up to step 2. *If you are using the sample data, go on to step 6.*
- 6) The screen prompt should now read SCREEN COLOR CHANGES?(Y/N). To modify the screen color, type **Y**, press **RETURN**, and move to the next instruction. (If you do not wish to change the screen color, type **N** and press **RETURN**. This will take you back to the main menu.) If you press **Y**, you now have three choices:

Press **F1** to change the screen color.

Press **F3** to change the border color.

Press **F5** to change the character color.

After changing your screen colors, press **F7** to return to the main menu.

## B. Adding New Records

Now you are ready to enter new records. As you enter your data, DATA MANAGER 2 checks for improper characters, dates, and numbers that you might have entered into your record accidentally. To add new records, follow these steps:

## DATA MANAGER 2 Command Instructions (con't.)

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- 1) When the menu appears on the screen, enter **1**, and press **RETURN**.
- 2) The format for the next record to be entered will be displayed on the screen. The dots represent the number of characters that can be entered into the field. Enter the information you wish to store in that field. *If you are using the sample data, type in SMITH and press **RETURN**.*

**NOTE:** If you enter an improper character, date, or number into a field, the entry will be wiped clean and you will have to repeat step 2.

When you are entering your data, you may need to enter the same information in the same field of two records. For example, you may have two people in your file with the same last name, which would appear in, say, field number 2 of each record. DATA MANAGER 2 offers you a special tool for this type of data entry that eliminates time-consuming entry duplication and possible typing errors.

In the above example, let's say you are entering the name SMITH in field 2 of record 189. When you come to field 2 of the very next record that you enter or modify (whether you are entering record 190 or modifying record 17 of your file) simply press the **F1** key. The name SMITH will be pulled forward from field 2 in record 189. You can only use the **F1** key to bring information forward from the very last record you entered or modified.

# DATA MANAGER 2 Command Instructions (con't.)

---

- 3) Repeat step 2 until all fields of the record are entered. If you don't want to enter information in a particular field, press **RETURN** to move on to the next field.
- 4) After all fields have been filled in, the screen prompt should read CHANGES? (Y/N). To make changes, type **Y**, and skip to the next instruction. If you do not wish to make changes, type **N**, and skip to step 7. *For the sample data, type **Y** and go on to step 5.*
- 5) Enter the field number you wish to change and press **RETURN**.
- 6) Enter the change you wish to make and press **RETURN**. Go back to step 4. *If you are using the sample data, type **N** when you see the prompt CHANGES? (Y/N), and go on to step 7.*
- 7) The screen prompt should read CONTINUE OR MENU? (C/M). To continue to enter new records, press **C** and press **RETURN**, and go back to step 2 above. When you are through adding records, press **M** and press **RETURN**.

## C. Deleting Records

DATA MANAGER 2 allows you to delete records in two ways. You can delete a *single* record, or you can delete a *group* of records after a search or cross-search.

- 1) When the menu appears on the screen, enter **2** and press **RETURN**. (If you have not done a search previously, skip to step 3.)

## DATA MANAGER 2 Command Instructions (con't.)

- 2) The screen prompt should read LAST SEARCH OR SINGLE RECORD? (L/S). To delete all the records that matched during your last search, press **L** and press **RETURN**. Skip to step 5. To delete a single record, press **S** and press **RETURN**.
- 3) Enter the record number you wish to delete and press **RETURN**. *For the sample data, enter 6.*
- 4) To view the record before deleting it, press **V** and press **RETURN**. *For the sample data, press V.*
- 5) The screen prompt will read ARE YOU SURE ABOUT DELETE? (Y/N). If you change your mind about deleting the record, press **N** and press **RETURN**. You will return to the menu. If you are sure you want that record deleted, press **Y** and press **RETURN**. The record(s) will be deleted, and the general information will be updated. *For the sample data, press Y, and record 6 will be deleted.*
- 6) To delete other records, press **V**, and return to step 3 above. If you do not want to delete more records, press **N**. You will return to the main menu.

NOTE: Each time the computer deletes a record, it updates the information on the disk. This takes about 15 seconds.

### D. View/Modify By Record Number

To look through your records in their alphabetic, chronologic, or numeric order, use VIEW/MODIFY BY RECORD NUMBER.

## DATA MANAGER 2 Command Instructions (con't.)

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- 1) When the menu appears on the screen, enter **4** and press **RETURN**.
- 2) Enter the first record you wish to view and press **RETURN**. If you press **RETURN** only, the computer will begin with the first record. *If you are using the sample data, type **1** and press **RETURN**.*
- 3) Enter the last record you wish to view and press **RETURN**. If you press **RETURN** only, the computer will search to the last record. *For the sample data, type **5** and press **RETURN**.*
- 4) The computer will then display a record. *(If you are using the sample data, record #1 will appear on your screen.)* The screen prompt should read CHANGES? (Y/N). To make any changes, type **Y**, and move to step 5. If you do not wish to make changes, type **N**, and skip to step 7. *For the sample data, press **Y**.*
- 5) Enter the field number you wish to change, and press **RETURN**. *For the sample data, type **4** and press **RETURN**.*
- 6) Enter your new information and press **RETURN**. Skip back to step 4. *For the sample data, enter CHICAGO and press **RETURN**. The computer will record the change on the disk. When the CHANGES? prompt reappears, type **N** and move on to step 7.*
- 7) To continue viewing the remaining records, press **N**, and go back to step 4 of this section.

# DATA MANAGER 2 Command Instructions (con't.)

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## E. View/Modify By Record Element

You can search through your records for any name, address, city, state, index code, etc., using VIEW/MODIFY BY RECORD ELEMENT. To perform a search, follow these steps:

- 1) When the menu appears on the screen, enter **5** and press **RETURN**.
- 2) A sample record will appear on the screen. Enter the characters you want to search for and press **RETURN**.  
*For the sample data, enter SMITH, and press RETURN.*

**NOTE:** The item you are searching for must be typed exactly as it appears in your records or no match will occur.

- 3) Enter the field number you wish to search and press **RETURN**. *For the sample data, enter 1 and press RETURN.*
- 4) Enter the first record you wish to view and press **RETURN**. If you press **RETURN** only, the computer will begin the search at record 1. *For the sample data, enter 1 and press RETURN.*
- 5) Enter the last record you wish to view and press **RETURN**. If you press **RETURN** only, the computer will search to the last record. *For the sample data, enter 5 and press RETURN.*

# DATA MANAGER 2 Command Instructions (con't.)

---

- 6) The computer will search through the designated records, looking for the characters you entered in step 2. The number of matches will appear at the top of the screen. The current record being searched will appear in the screen prompt area.
  
- 7) If the computer does not find any matches during the search, the main menu will reappear on your screen. If the computer finds matches, you will see the prompt LIST? (Y/N). To list the matches that were found, type **Y**. You will then see the first matching record on your screen along with the prompt CHANGES? (Y/N). If you press **Y**, you can make changes. If you press **N** for no changes, you will see the prompt NEXT RECORD OR MENU? (N/M). Press **N** to continue viewing the matches or **M** to return to the menu.

If you press **N** in response to LIST? (Y/N), the menu will appear on your screen and the computer will wait for your next command.

NOTE: Menu items 5, 6, and 7 allow you to cross-search your data using X-SEARCH. X-SEARCH allows you to pick out specific records from your file. See Section V-H for more on X-SEARCH.

## F. View/Modify By Amount Range

DATA MANAGER 2 allows you to search through your records for any amount range you choose using VIEW/MODIFY BY AMOUNT RANGE. To perform a search by amount range, follow these steps:

## DATA MANAGER 2 Command Instructions (con't.)

---

- 1) When the menu appears on the screen, enter **6** and press **RETURN**.
- 2) A sample of your record format will appear on the screen. Enter the smallest amount you want the computer to accept as a match and press **RETURN**. *For the sample data, enter **2** and press **RETURN**.*
- 3) A sample of your record format will again appear on the screen. Enter the largest amount you want the computer to accept as a match and press **RETURN**. *For the sample data, enter **3** and press **RETURN**.*
- 4) Enter the field number you wish to search and press **RETURN**. *For the sample data, enter **11** and press **RETURN**.*
- 5) Enter the first record you wish to view and press **RETURN**. If you press **RETURN** only, the computer will begin the search at record 1. *Enter **1** for the sample.*
- 6) Enter the last record you wish to view and press **RETURN**. If you press **RETURN** only, the computer will search to the last record. *Enter **5** for the sample.*
- 7) The computer will search through the designated records, looking for those values which fall between the largest amount and smallest amount you entered. The number of matches will appear at the top of the screen. The record currently being searched will appear in the screen prompt area.

# DATA MANAGER 2 Command Instructions (con't.)

---

- 8) If the computer does not find any matches during the search, the main menu will reappear on your screen. If the computer finds matches, you will see the prompt LIST? (Y/N). To list the matches, type **Y**. You will then see the first matching record on your screen along with the prompt CHANGES? (Y/N). Press **Y** to make changes. If you press **N** for no changes, you will see the prompt NEXT RECORD OR MENU? (N/M). Press **N** to continue viewing the matches or **M** to return to the menu.

If you press **N** in response to LIST? (Y/N), the menu will appear on your screen and the computer will wait for your next command.

NOTE: Menu items 5, 6, and 7 allow you to cross-search your data using X-SEARCH.

X-SEARCH allows you to pick out specific records from your file. See Section V-H for more on X-SEARCH.

## G. View/Modify By Date Range

DATA MANAGER 2 allows you to search through your records for any date range you choose using VIEW/MODIFY BY DATE RANGE. To search by date range, follow these steps:

- 1) When the menu appears on the screen, enter **7** and press **RETURN**.
- 2) A sample of your record format will appear on the screen. Enter the earliest date you want the computer to accept as a match and press **RETURN**. *For the sample, enter **11/11/11**.*

## DATA MANAGER 2 Command Instructions (con't.)

---

- 3) A sample of your record format will again appear on the screen. Enter the latest date you want the computer to accept as a match and press **RETURN**. For the sample, enter **11/19/53**.

NOTE: To view or modify all records for only one of the date elements (say you want to view all records for a particular year without regard to month or day), enter only the elements of the date that you want to search by. You must enter asterisks in place of the other date elements in the mm/dd/yy format. For example, let's say you want to view all of your records for January of all years. When you see the prompt EARLIEST DATE? (MM/DD/YY), enter **01/\*\*/\*\***. You must enter the same characters in response to the prompt LATEST DATE? (MM/DD/YY) in order for the search to be successful. The computer will then search for all of your records for any day in January in any year.

- 4) Enter the field number you wish to search and press **RETURN**. Enter **9** for the sample data.
- 5) Enter the first record you wish to view and press **RETURN**. If no number has been entered, the computer will begin the search at record 1. Enter **1** for the sample data.
- 6) Now enter the last record you wish to view and press **RETURN**. If you press **RETURN** only, the computer will search to the last record. Enter **5** for the sample.

# DATA MANAGER 2 Command Instructions (con't.)

---

- 7) The computer will search through the designated records, looking for those dates which fall between the dates you indicated. The number of matches will appear at the top of the screen. The current record being searched will appear in the screen prompt area.
  
- 8) If the computer does not find any matches during the search, the main menu will reappear on your screen. If the computer finds matches, you will see the prompt LIST? (Y/N). To list the matches, type **Y**. You will then see the first matching record on your screen along with the prompt CHANGES? (Y/N). Press **Y** to make changes. If you press **N**, you will see the prompt NEXT RECORD OR MENU? (N/M). Press **N** to continue viewing the matches or **M** to return to the menu.

If you press **N** in response to LIST? (Y/N), the menu will appear on the screen and the computer will wait for your next command.

NOTE: Menu items 5, 6, and 7 allow you to cross-search your data using X-SEARCH. X-SEARCH allows you to pick out specific records from your file. See Section V-H for more on X-SEARCH.

## H. X-SEARCH

DATA MANAGER 2 contains cross-search capabilities which allow you to narrow down each search until the only records remaining contain your specific selections. For example, let's say your record format looks like this:

## DATA MANAGER 2 Command Instructions (con't.)

---

1. NAME 1:
2. NAME 2:
3. ADDRESS:
4. CITY:
5. STATE:
6. ZIP:
7. TELEPHONE:
8. EXT:
9. BIRTHDAY:
10. ANNIVERSARY:
11. CHILDREN:

and you want to find all of the people in your records who:

- A. live in Chicago
- B. live on Western Ave.
- C. were born between 11/11/11 and 01/05/53
- D. have between 3 and 7 children

**THIS IS A JOB FOR X-SEARCH!**

## DATA MANAGER 2 Command Instructions (con't.)

---

Here's what you do:

- 1) Use menu item 5. Search for Chicago in field 4. You can now list all of the people who live in Chicago.
- 2) When the computer prompts X-SEARCH?(Y/N), type **Y**, and press **RETURN**.
- 3) Use menu item 5. Search for Western in field 3. You will now be able to list all of your Chicago friends who live on Western Avenue.
- 4) When the computer prompts X-SEARCH? (Y/N), type **Y**, and press **RETURN**.
- 5) Use menu item 7. Type in **9** for the line number to be searched. Type in **11/11/11** as the earliest date and **01/05/53** as the latest date. After the computer searches this field, you will be able to list your friends in Chicago who live on Western and were born between 11/11/11 and 01/05/53.
- 6) When the computer prompts X-SEARCH?(Y/N), type **Y**, and press **RETURN**.
- 7) Use menu item 6. Type in **11** for the line number to be searched. Type in **3** as the smallest number and **7** as the largest number. After the computer has made its search, you will be able to list your friends who live in Chicago, who live on Western, who were born between 11/11/11 and 01/05/53, and who have between 3 and 7 children.

# DATA MANAGER 2 Command Instructions (con't.)

Easy, wasn't it?

While X-SEARCH was in operation, each time the computer did a search, it searched through the items that matched on the previous search. This action narrows down the records until you see the records you want.

## I. Statistical Analysis and Frequency Bar Charts

DATA MANAGER 2 allows you to compute the statistics located in any numerical field of your records. After recording your statistics, DATA MANAGER 2 will produce a frequency bar chart, which allows you to see how often an amount occurs compared to other amounts in your data file. To compute statistics, follow these steps:

- 1) Select 8 on the program menu.
- 2) In response to STATISTICS?(Y/N), press **Y**. To view an X-Chart instead, press **N** and skip to Section K, "Producing X-Charts". *For the sample data, type Y.*

**NOTE:** To generate a bar chart, press **Y** in response to the STATISTICS? prompt.

- 3) A sample of your record format will appear on the screen. Enter the field number containing the values you want to analyze. You must select a numeric field for this prompt. Press **RETURN**. *Enter 14 for the sample data.*
- 4) Press **A** to search all of your records or **L** to use only those records that matched in the last search you performed. *For the sample data, press A.*

## DATA MANAGER 2 Command Instructions (con't.)

- 5) Now enter the number of the first record in the group you want to tabulate. Press **RETURN**. (If you press **RETURN** only, the computer will start with record 1.) *For the sample data, press **RETURN** only.*
- 6) Enter the number of the last record in the group you want to tabulate, and press **RETURN**. (If you press **RETURN** only, the computer will end with your last record.) *For the sample data, press **RETURN** only.*
- 7) The computer will make two passes through your records while your information is being tabulated. Then it will display the results.

**NOTE:** For an explanation of the terms on this table, including "Standard Deviation" and "Increment", see the glossary at the front of this manual.

- 8) After your statistical data is displayed, you will be asked if you want to see a frequency bar chart. If so, press **Y**, and the bar chart will be displayed. If you do not want to see a bar chart, press **N**, and move on to section K. *For the sample data, press **Y**.*

Let's take a closer look at the bar chart.

First, note the values across the bottom of the chart. These are the low and the high values of all of the amounts found in the records you specified, as well as the mean, or middle value, between the low and high value. The numbers displayed vertically on the left side of the chart represent the frequency with which amounts occurred in each range (between the low and middle values and between the middle and high values).

# DATA MANAGER 2 Command Instructions (con't.)

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The range of values between the lowest and the highest amounts is divided into 32 equal ranges, and each of these 32 ranges is represented by a bar on the frequency chart. The "Increment" value, which you saw displayed on the statistics screen, represents the range of values, or the width, of each bar.

*For the sample data, each bar represents values broken down into 32 increments of 1062.5 each. The height of each bar represents the number of amounts that fall into the range. You will see by the first bar of the graph that there is 1 amount in the sample data that falls between 0 and 1062.5.*

## J. Producing X-Charts

DATA MANAGER 2 includes another type of graph, Timeworks' exclusive X-Chart. There are two methods for producing X-Charts: the standard method and the user-defined method. Both standard and user-defined X-Charts display up to 10 color-coded sections that correspond to 10 different character indexes, amount ranges, or date ranges that you specify. Each color-coded section includes a corresponding label, total, and percentage that shows how each individual index, amount range, or date range compares to the total of all indexes or ranges you specified.

You can use the standard method to produce an X-Chart that compares gross sales for each of ten salesmen, or you can use this method to show you the number of times certain names or indexes appear in your records.

# DATA MANAGER 2 Command Instructions (con't.)

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The user-defined method will produce an X-Chart that shows you how many numbers or dates fall into certain ranges that you define. It can also total and display amounts that correspond to amount or date fields in your records.

Let's look at the standard method first.

## 1) Producing X-Charts with the Standard Method

**NOTE:** To bypass the statistics section and go directly to the X-Chart, press **N** in response to the STATISTICS? prompt.

- a) When the X-CHART?(Y/N) prompt appears, press **Y**. (If you press **N** in response to this prompt, you will return to the menu.) *For the sample data, press **Y**.*
- b) Next you will be asked STANDARD OR USER-DEFINED METHOD?(S/U). To use the standard method, press **S**. (For information on the user-defined method, see section K-2.) *For the sample data, press **S**.*
- c) A sample of your record format will appear on the screen and you will be asked to enter the field number that contains the index for your graph. The index field contains the data you want to use as a basis for your graph. This field must be a character field, such as "Name2". Enter the field number and press **RETURN**.

## DATA MANAGER 2 Command Instructions (con't.)

*For the sample data, we want to compare the gross pay amounts for the first ten people in our data file. Field 2 holds the names of these people, so field 2 is the index field for this graph. Enter 2 and press **RETURN**.*

- d) Now enter the field number that contains the amounts you want to total and compare in your X-Chart, and press **RETURN**. Your amount field must be a numeric field, such as "Gross Pay". *Enter 14 for the sample data.*

**NOTE:** You can also use the standard method to count the number of times the information in your index field (step c) appears in your records. To perform a count, press **C** for the prompt in step d above (instead of entering a field number). Then continue following steps e through i in this section. For the sample data, an X-Chart of this type would show the number of times that each name in field 2 appears in the sample data file. It will also show the percentage which corresponds to that count. For example, if a name appears once in 5 records, it appears 20% of the time in that file.

## DATA MANAGER 2 Command Instructions (con't.)

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- e) Press **X** to search your records by X-Sort sequence or press **D** to search your records in the order that you entered them. Remember that if you have performed a sort on your data file, the first 10 indexes that appear in X-Sort order may be different from the first 10 that appear in disk order. *For the sample data, press **D**.*
- f) Press **A** to search all of your records or **L** to use only those records found in your last search. *For the sample data, press **A**.*
- g) Now enter the number of the first record in the group you want to tabulate. Press **RETURN**. (If you press **RETURN** only, the computer will start with record 1.) *For the sample data, press **RETURN**.*
- h) Enter the number of the last record in the group you want to tabulate. Press **RETURN**. (If you press **RETURN** only, the computer will end with your last record.) *For the sample data, press **RETURN**.*
- i) The computer will now begin tabulating your data using the first 10 different indexes from the index field you specified in step c. (If you have more than 10 different items in your index field, the computer takes the first 10 only, but it will continue to search your remaining records. The values in the later records will not be totalled.) It will total all of the amounts from the field you specified in step d that apply to these indexes. The X-Chart will appear on your screen.

# DATA MANAGER 2 Command Instructions (con't.)

*For the sample data, the computer takes values for the first 10 different names in field 2 (only 5 are available) and then totals all of the corresponding amounts from field 14. Each individual's gross pay is then compared to the gross pay of all individuals totalled together.*

j) To return to the menu, press **M**.

## 2) Producing Graphs with the User-Defined Method

NOTE: To bypass the statistics section and go directly to the X-Chart, press **N** in response to the STATISTICS? prompt.

- a) When the X-CHART?(Y/N) prompt appears, press **Y**. (If you press **N**, you will return to the menu.)  
*For the sample data, press **Y**.*
- b) Press **U** for the user-defined method. *For the sample data, press **U**.*
- c) To compare amounts in your records to amount ranges you will specify, press **A**. To compare dates in your records to date ranges you will specify, press **D**. This is where this procedure gets a little tricky, so let's look at an example.

*For the sample data, we want to find the people in our file who have children, and then we want to group these people into ranges defined by the number of children they have. Next, we want to find out the total of the gross pay earned by the people in each range. This information will give us*

## DATA MANAGER 2 Command Instructions (con't.)

*an idea of how much money is being paid to smaller families versus larger families. Having defined the problem in advance, we know that this is not a date comparison. We want to compare the amounts earned by each group, so press **A**.*

- d) Now enter the field number that contains the amount (or date) index you want to use in the graph. Press **RETURN**. The amounts or dates in this field will be the information you use to define your ranges. *For the sample data, you want to define the ranges in terms of number of children, so enter **11** for the "Children" field.*
- e) Next enter the field number that contains the amounts you want to total and display in your graph, and press **RETURN**. *For the sample data, enter **14** and press **RETURN**.*

**NOTE:** You can use this method to count the number of times an amount in your index field (step d) falls into a range you specify. To perform a count, press **C** for the prompt in step e (instead of entering a field number). Then follow steps f through k in this section. For the sample data, an X-Chart of this type would show how many records show the number of children in range 1, in range 2, and so on. It will also show the percentage which corresponds to that count.

## DATA MANAGER 2 Command Instructions (con't.)

To count the number of times a particular date falls into a range you specify, select **D** for AMOUNT OR DATE COMPARISON?. Then enter a date field number. Next press **C** to perform a count. Continue following steps f through k in this section. The resulting X-Chart will display the number of times each date appears in your records, as well as a percentage that corresponds to that count.

- f) You will now be able to enter 10 ranges for your amount or date comparison. You must decide how you want to group the data in your index field for these ranges. Then you can begin entering the ranges by entering the highest amount or latest date in each range and pressing **RETURN**.

For example, to define your first range for between 0 and 1 children, you would enter 1 and press **RETURN**. Any amount that is less than or equal to 1 will be totaled or counted in range 1. An amount above 1 will be grouped in a subsequent range. An amount that falls between ranges will be counted as part of the next highest range.

**NOTE:** Ranges with totals that are 5% or less of the total of all amounts in your amount field will be displayed under the heading OTHER on your X-Chart. For example, in the sample data, one record shows 4 children but shows 0 for the gross pay. Because this amount is

# DATA MANAGER 2 Command Instructions (con't.)

less than 5% of the total of gross pay for your records, the range that contains 4 children would appear under OTHER. If the total of all ranges under OTHER is less than 5% of the total, the OTHER heading will not appear on your screen.

Note that ranges which are higher than the number you specify for range 10 will also appear under OTHER.

After entering your range, you will be asked if you want to make changes. If so, press **Y**, and reenter the range. If not, press **N**, and continue entering ranges.

**NOTE:** You *must* define a value for all 10 ranges, and your ranges must be in ascending order.

*For the sample data, enter 1 for your first range and press **RETURN**. (This number represents the range from 0-1.) Press **N** for CHANGES?. Then enter 2 for your second range, 3 for your third range, and so on until you have entered 10 for your last range. By specifying these ranges, you are asking the computer to calculate the total gross pay for all families with 1 child or less, for families with more than 1 child but less than 2, and so on.*

- g) After you have entered all of your index ranges, you will be asked **ARE THESE THE RANGES YOU WANT? (Y/N)**. Press **Y** and move on to the next step. (If you press **N**, you will return to step f.) *For the sample data, press **Y**.*

## DATA MANAGER 2 Command Instructions (con't.)

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- h) Press **A** to search all of your records or **L** to use only those records found in your last search. *For the sample data, press **A**.*
- i) Now enter the number of the first record in the group you want to tabulate. Press **RETURN**. (Press **RETURN** only to start with record 1.) *For the sample data, press **RETURN**.*
- j) Enter the number of the last record in the group you want to tabulate. Press **RETURN**. (If you press **RETURN** only, the computer will end with your last record.) *For the sample data, press **RETURN**.*
- k) The computer will now display your X-Chart. To return to the menu, press **M**.

### K. Field Calculations

You can command DATA MANAGER 2 to perform simple calculations between two different numerical fields, on a single numerical field, or between a numerical field and a constant number. You can perform these calculations on all the records, a range of records, or the records that matched during the last search.

Example:

Let's say you have your employee payroll information stored on your DATA MANAGER 2 data disk and you want to calculate the net salary of your employees. To calculate this data:

# DATA MANAGER 2 Command Instructions (con't.)

---

- 1) Select 9 from the program menu.
- 2) A sample of your record format will appear on the screen. Enter the first (operand) field number and press **RETURN**. An "operand" field is a field on which a calculation is performed. For example, if you wanted to add field 1 to field 2, and place the result in field 3 (field 1 + field 2 = field 3), field 1 would be the first operand field. *For the sample data, enter 14.*
- 3) Enter the second operand field number, press **RETURN**, and skip to step 5. *Enter 15 for the sample.*

If you want the second operand to be a constant, type **C**, and press **RETURN**. You will then see the prompt ENTER CONSTANT?. Enter the number you wish and press **RETURN**.

**NOTE:** In the example in step 2 above, field 2 is the second operand field.

- 4) Enter the result operand field number and press **RETURN**. *For the sample, enter 16.*

**NOTE:** In our example in step 2 above, field 3 is the result operand field.

- 5) The screen prompt should read ENTER OPERATION? (A/S/M/D)?. (This is the math function, i.e., add, subtract, multiply, or divide.) Enter the operation you wish to perform and press **RETURN**.

## DATA MANAGER 2 Command Instructions (con't.)

---

For the sample, type **S** and press **RETURN**. The computer will subtract field 15 (taxes) from field 14 (the gross salary) and enter the result in field 16 to give you the net salary.

**NOTE:** The length of time needed for calculation and writing of the record depends on the number of records to be calculated. It takes approximately 5 seconds per record calculation.

- 6) If you want the computer to look through all of your records, press **A**. To use only those records found in the last search you performed, press **L**. Press **A** for the sample.
- 7) Now enter the first record number to be calculated and press **RETURN**. If no number has been entered, the computer will begin the search at record 1. For the sample, enter **1** and press **RETURN**.
- 8) Enter the last record you wish to be calculated and press **RETURN**. If no number is entered, the computer will search to the last number. Enter **5** and press **RETURN** for the sample.
- 9) The computer will now move through your records, calculating and replacing the fields that you chose. The screen prompt area shows the record currently being calculated. When all calculations are complete, the menu will appear on the screen and the computer will wait for your next command.

# DATA MANAGER 2 Command Instructions (con't.)

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## L. Moving Or Sorting Records and X-Sort

DATA MANAGER 2 allows you to move a single record to any location you choose. It also sorts your records alphabetically, chronologically (by date), or numerically. Three separate programs, linked by the DATA MANAGER 2 main program, will sort your records.

- 1) Select 10 from the program menu.
- 2) To move a single record, type **M** and move to step 3. To sort all of your records, press **S** and move to step 6.
- 3) Type the number of the record you wish to move and press **RETURN**. *For the sample, type **3** and press **RETURN**.*
- 4) Type in the new record number position for the record being moved. Press **RETURN**. *Type **1** and press **RETURN** for the sample data.*
- 5) The computer will now move the record to its new position, and the menu will appear.
- 6) If you choose to do a sort, the screen prompt will read CHARACTER, DATE OR NUMBER? (C/D/N). If you wish to sort alphabetically, type **C**. If you wish to sort chronologically, type **D**. If you wish to sort numerically, type **N**. *For the sample, press **N**.*

**NOTE:** If you choose **C** for a character sort, you will have a choice of sorting by the characters in an entire field or sorting by the first three characters in the field. When you see the prompt **COMPLETE OR PARTIAL?**

## DATA MANAGER 2 Command Instructions (con't.)

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(C/P), press **C** to perform a complete sort. The computer will then sort your records using all of the characters in your sorting field. You may want to choose this type of sort if the words in this field of each record are spelled somewhat alike. For example, if you have records with the names SMITH, SMITHFIELD, and SMITTY, you would want the computer to look at all of the characters in each word before putting these records in alphabetical order.

If you press **P** for a partial sort, the computer will sort your records by the first three characters in the field you choose. (This is a much faster sort than the complete sort.) You might want to perform this type of sort if the words in your sorting field of each record are all very different, such as BRUCE, HAROLD, and FRED.

- 7) The computer will update the X-SORT sequence (record order) onto the disk.
- 8) After the X-SORT sequence has been written onto the disk, remove your data disk from the disk drive and press **RETURN**.
- 9) Insert the program disk into the disk drive and press **RETURN**.
- 10) The X-SORT program will be loaded into the computer. It will take about 1 minute to load. After the X-SORT program has been loaded into the computer, it will run automatically.

## DATA MANAGER 2 Command Instructions (con't.)

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- 11) Remove the program disk from the disk drive and press **RETURN**.
- 12) Insert your data disk into the disk drive and press any key. *If you are using the sample data, perform this step and then skip to step 14.*
- 13) Now enter your password and press **RETURN**.
- 14) A sample of your record format will appear on the screen. Enter the field that will determine the alphabetical, numerical, or chronological order of your data. Then press **RETURN**. *For the sample, enter **14** and press **RETURN**.*
- 15) Press **I** to sort your records into increasing order or **D** to sort them into decreasing order. *For the sample data, type **I** and press **RETURN**.*
- 16) The actual X-SORT will now take place. The record being sorted will be shown in the screen prompt area.

**NOTE:** The length of time for the sort sequence is determined by the number of records that need to be sorted and the order they are in at the time of the sorting process.

- 17) The computer will now write the new X-SORT sequence onto the data disk. After the X-SORT sequence has been written, remove the data disk and press **RETURN**.
- 18) Insert the program disk in the drive and press **RETURN**.

# DATA MANAGER 2 Command Instructions (con't.)

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- 19) The main program will load into your computer. When the program has been loaded, insert your data disk and press **RETURN**. The main menu will appear on your screen.

## M. Opening A New File or Ending The Program

When you are finished working with DATA MANAGER 2, you must end the program using the OPEN NEW FILE/END PROGRAM menu item. This menu item gives you two options. First, you can load another file. This is called "opening a new file."

Second, you can end this program and load another program. When the computer receives the "end run" command from you, it updates all information, along with the X-SORT sequence, and saves all of the data from your current session onto your data disk. The next time you use DATA MANAGER 2, the computer will recall where you left off.

**NOTE: DO NOT END THE PROGRAM WITHOUT USING MENU ITEM 12 OR YOUR DATA WILL BE LOST!**

- 1) Select item 12 from the program menu.
- 2) To work with another file, press **Y** and return to section V-A-(6) to load another file into the computer. If you press **N** for no, you will move on to step 3 below.
- 3) To end the program, type **Y**, and move to the next instruction. If you do not wish to end the program, type **N**. The menu will appear on the screen.

## DATA MANAGER 2 Command Instructions (con't.)

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- 4) The computer will write the latest X-SORT sequence onto your data disk.
- 5) To load another program, type **Y** and move to step 6. Type **N** if you do not wish to load another program, and you will end DATA MANAGER 2.
- 6) If you press **Y**, you must now type in your program name and press **RETURN**. Follow the prompts to load your program.

## VI. The Extended Print Feature

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**NOTE:** At times you may see prompts on your display that are not noted in this manual. Do not be concerned. Simply follow the prompts that appear on your display.

### A. Information on the Extended Print Feature

Another one of the features of the DATA MANAGER 2 is the Extended Print feature. The Extended Print capability gives you these important options:

- 1) **Label Printout** – You can print information from your data base directly onto mailing labels, inventory labels, price tags, or any number of other labels.
- 2) **Form Letter Printout** – At your command, your addresses can be inserted into a form letter, and your letters will print out picture perfect every time!
- 3) **Report Writer** – You can place information from your data base into columns in printed reports, allowing you to view your data clearly and easily.
- 4) **Spreadsheet-Type Capabilities** – You can perform calculations on the contents of your columns. You can perform mathematical computations using data from your records, from amounts you enter, or from amounts calculated in the columns in your report.
- 5) **Transfer Information** – Information can be transferred directly to your word processor in list format.

# The Extended Print Feature (con't.)

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## B. Getting Started

To use the Extended Print section of the DATA MANAGER 2, select menu item 11 from the DATA MANAGER 2 menu. Follow the prompts on your display to assure proper disk placement.

- 1) When the Extended Print section has been loaded into your computer, you will see the prompt INITIALIZE UTILITY DISK?(Y/N). Press **Y** for yes to create a data disk for storing information generated from the Extended Print section. If you press **N** for no, follow the prompts until you see the Extended Print program menu on your screen. Then proceed to Section VI-C, "The Extended Print Program Menu."
- 2) If you pressed **Y**, remove the DATA MANAGER 2 program disk and insert your own 5¼" floppy disk into the disk drive.

**WARNING:** Any information existing on the disk you use for this purpose will be entirely erased, so be sure there is no important information stored on it. The "write protect" notch must also be uncovered.

- 3) Check to be sure the disk you have in the disk drive does NOT contain any important information. Then press **Y** or **N** in response to ARE YOU SURE?(Y/N). Your disk drive will grind and churn for about 90 seconds as the computer sets up the "road map" it will use to store information on your data disk. This process is called initialization.

## The Extended Print Feature (con't.)

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- 4) Once the UTILITY disk is initialized, remove it from the disk drive and insert your DATA MANAGER 2 data disk into the disk drive. Then press **RETURN**. Your data will load into the computer.

### C. The Extended Print Program Menu

In general, the Extended Print feature lets you look at information on your DATA MANAGER 2 data disk. However, you cannot *modify* any existing records. You also cannot *enter* any new information on your data disk. You can, however, greatly expand your printing capabilities. Below is the Extended Print program menu.

#### MENU ITEMS FOR THE EXTENDED PRINT MENU:

- 1) VIEW GENERAL INFORMATION – Same as DATA MANAGER 2.
- 2) VIEW BY RECORD NUMBER – Same as DATA MANAGER 2.
- 3) VIEW BY RECORD ELEMENT – Same as DATA MANAGER 2.
- 4) VIEW BY AMOUNT RANGE – Same as DATA MANAGER 2.
- 5) VIEW BY DATE RANGE – Same as DATA MANAGER 2.
- 6) PRINT REPORTS
- 7) PRINT LABELS

# The Extended Print Feature (con't.)

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- 8) PRINT RECORDS
- 9) OPEN NEW FILE/RETURN to DM2 – Used to open a file or exit to the DATA MANAGER 2 main program.

## D. Choosing a Group of Information

Generally, you will use this Extended Print program to print data from your data disk – labels, reports, and so on. Before you can do this, you have to decide what information you want to print. To print information from all of your records, go straight to menu item 6, 7, or 8 to print either reports, labels, or records.

**NOTE:** Because of computer memory constraints, only 150 label lines and 50 report lines can be transferred to the word processor at one time. If you need to transfer more lines than this, you must store your information in separate groups under different names. We will cover this in more detail later.

If you only want to print a specific group of your records, use the VIEW and X-SEARCH functions to isolate the records you want to obtain printouts for. See Sections V-A and V-H of the DATA MANAGER 2 manual to obtain more information on using these functions. Now that you have isolated the record or records you wish to print, let's look at the special printing options.

# The Extended Print Feature (con't.)

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## E. Printing Labels

With the Extended Print feature, you can print out labels for price tags, inventory control, file folders, and many other purposes. You can also use this feature to create an address list for later use with the WORD WRITER. However, before you can use the form letter printout option in the WORD WRITER, you must first create your address list using the Extended Print section of the DATA MANAGER 2.

To print out labels, select menu item 7 on the Extended Print menu. Then follow these steps.

### 1) Choosing the Size of Your Labels

**NOTE:** The label printer in this program has a maximum label size of 80 characters wide by 17 characters long. You choose the size of your label. The computer usually prints out addresses on standard 3½" x 1" labels. This lets you print 30 characters across and five lines down. See your local computer supply dealer or office supply store for labels to fit your printer. You may want to try AVERY #4145 labels.

Now you need to set the size of your labels. Type in the label width you want, and then press **RETURN**. Next, type in the label length that you want and press **RETURN** again.

# The Extended Print Feature (con't.)

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## 2) Specifying Information for Your Labels

Now the computer will ask you to choose the fields you want to print on each of the label lines, and in what order. You can print up to five fields on a label line or you can leave a label line blank.

Enter the number of the field that you want on label line 1 in the first position. If you want label line 1 blank, just press **RETURN**, and you will move on to label line 2. If you enter a field number for label line 1a, you will move on to label line 1b.

**NOTE:** Each line of your label can be divided into five segments, labelled a through e, and each segment can hold information from a field in your format. When you see the prompt **FIELD FOR LABEL LINE 1a?**, you are being asked to enter the field number holding the information that you want to appear in the first segment of line 1. You will be prompted to enter a field number for each segment of each label line. If you press **RETURN**, the computer will assume that you want to leave that segment, as well as the rest of the line, blank, and the computer will move on to the next label line.

**NOTE:** When you use more than one field on a label line, the fields will be printed with one space separating them. If you want more characters printed on a label than have been specified in step 1 above, the remaining characters will be omitted.

# The Extended Print Feature (con't.)

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## 3) Modifying Your Label Information

Keep responding to these prompts for each label line until you have filled all lines. When you have filled all your label lines, the completed label format should appear on the screen and the prompt CHANGES?(Y/N) should appear. If you see a 0 for Record Line Number, nothing will be printed for that label position.

Check the label format, and press **Y** if you are satisfied. Press **N** if you would like to change the label format, and you will have an opportunity to do so.

## 4) Printing Your Labels

In response to PRINT LABELS?(Y/N), press **Y** if you want to print out your labels, or press **N** if you don't. If you press **N**, you will return to the menu.

Type in the number of the record you want the label printer to start with. Then press **RETURN**. If you press **RETURN** only, the label maker starts with your first record.

Type in the number of the record you would like the label printer to end with. Then press **RETURN**. If you press **RETURN** only, the label maker stops after printing the last record on your data disk.

Now press **A** to use *all* the information stored on your data disk, or press **L** for only the records you isolated in the *last* search.

Lastly, press **Y** if your printer is connected, or press **N** if it is not. If you press **Y**, your printer will print out your labels.

**NOTE:** When the prompt **IS YOUR PRINTER CONNECTED?(Y/N)** appears on your screen, you have an opportunity to change the device address of the piece of equipment on which you want to print your labels. You should do this if you want to view your label information on your monitor instead of printing them on your printer. To do this, press the **G** and **P** keys at the same time. When you see the prompt **ENTER DEVICE NUMBER?**, press **3** if you want to view the information on your screen or **4** if you want to print it on your printer (if you do not change the device address, the system automatically prints on your printer).

Then you have an opportunity to change the secondary address of your interface. You may want to do this if your interface has trouble operating with this program. (Consult your interface manual for more information on secondary addresses.) Enter the address recommended by your interface manual.

At this time, you also have the option to send a printer command to your printer. You should do this if you want to print in a special typeface. To do this, press the **G** and **C** keys at the same time. When you see the prompt **ENTER CODE?**, enter the code you want to send to the printer (see your printer manual for more information on printer codes). Then press **RETURN** until

## The Extended Print Feature (con't.)

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you see the prompt **IS YOUR PRINTER CONNECTED?(Y/N)** again.

**NOTE:** To stop printing at any time, press **RUN/STOP** until the printing stops.

### 5) Storing Label Information

Once your labels have finished printing out, or you have ended the printing by pressing the **RUN/STOP** key, you will see the prompt **STORE ADDRESSES ON DISK?(Y/N)**. To store the addresses that were printed out onto a disk, press **Y** for yes. Press **N** for no to return to the menu. If you press **Y** the computer will ask you to put your **UTILITY** disk in your disk drive. Remove your **DATA MANAGER 2** data disk and insert your **UTILITY** disk. Then press **RETURN** to continue.

Next, type in a name (ten characters maximum), and press **RETURN**. The computer now stores your label information on your **UTILITY** disk and you can retrieve it through the **WORD WRITER** program. If any disk drive errors occur, the computer tells you and requests that you enter the name again. For more information on disk drive errors, see your disk drive owner's manual.

## The Extended Print Feature (con't.)

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**NOTE ON LABEL STORAGE:** Due to computer memory constraints, you can store a maximum of 150 label lines, or 50 total labels, under one name. This holds true for the standard 30-character label. If your labels are wider, the total number of labels that can be stored is reduced.

<u>CHARACTERS</u>	<u>MAXIMUM LABEL LINES ON ONE DISK UNDER ONE NAME</u>
30	150 Label lines
40	112 Label lines
50	90 Label lines
60	75 Label lines
70	64 Label lines
80	56 Label lines

**EXAMPLE:** If you only use three lines of a 30-character label, you can store a maximum of 50 labels under one name on disk. If you use five lines per label, you can store 30 labels under one name. You can't store more than 50 labels under one name.

After the computer stores the label information on your **UTILITY** disk, remove your **UTILITY** disk from the disk drive, and insert your **DATA MANAGER 2** data disk. Press **RETURN**. The menu will appear.

### F. Writing Reports

On to the report writer! This feature lets you create reports using a column format, and organizes the informa-

# The Extended Print Feature (con't.)

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tion on your data disk for easy reading. To create a report, select menu item 6 on the Extended Print menu. Then follow these steps.

## 1) Loading a Previously Created Format

Before you create a new report, you will be given an opportunity to load and work with a format that you have previously stored on your UTILITY disk. You will see the prompt LOAD A REPORT FORMAT? (Y/N). If you do not want to load a format, press **N** and proceed to step 2, "Information on Creating a Report Format".

To load a format from your UTILITY disk, press **Y**. Remove your DATA MANAGER 2 data disk from the disk drive. Place your UTILITY disk in your disk drive. Then press **RETURN** to continue.

Type in the name of the report format you want to load and press **RETURN**. The computer will load the report format from your UTILITY disk. The computer will let you know when the format is loaded.

Remove your UTILITY disk from the disk drive. Place your DATA MANAGER 2 data disk in the disk drive. Then press **RETURN** to continue.

Now proceed directly to step 4, "Making Changes to Your Format".

## 2) Information on Creating a Report Format

Next, you see at the bottom of the display:

# The Extended Print Feature (con't.)

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COLUMN # 1            80 SPACES REMAINING  
TEXT, AMOUNT, DATE, OR CALC?(T/A/D/C/N)

You have come to the report format section of this program. You have 80 spaces across for your report. You have up to 20 columns to display the information from your data disk. A typical report from an address list looks like this:

<u>NAME</u>	<u>CITY/ST</u>	<u>PHONE</u>	<u>AGE</u>	<u>B-DAY</u>
John Doe	Chicago IL	312/555-1212	25	11/11/00
Mary Smith	DesMoines IA	467/555-1212	32	12/12/00
Bob Thomas	New York	212/555-1212	29	02/03/00

You can store and print reports like these on your disk by name. You can recall these reports later, and use them with the WORD WRITER.

## The Four Types of Report Columns

Columns can contain up to four types of information – text, amounts, dates, or results of calculations:

**TEXT** – Text is alphanumeric information (letters and numbers). A name or address is text. The NAME, CITY/ST, and PHONE columns are text columns.

**AMOUNTS** – An amount is a numerical value; that is, information with no characters except digits from 0 to 9, and an occasional decimal point. The AGE column above is an example of an amount column. The PHONE column is NOT an amount column because a “/” and a “-” appear in the column.

# The Extended Print Feature (con't.)

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**DATES** – A date appears in the MM/DD/YY format (MM=month DD=day YY=year). The date December 18, 1988, becomes 12/18/88. Since you must fill all spaces, February 9, 1988, becomes 02/09/88.

**CALC** – This stands for calculations. You set up your column as the place where you put the result of a calculation. You can use amounts from your data disk, amounts from another column, or amounts you enter for your calculations.

### 3) Choosing A Column Format

Now you have to decide the format of the information for column # 1. In response to **TEXT**, **AMOUNT**, **DATE**, OR **CALC?**(T/A/D/C/N), press **T** for **TEXT**, **A** for an **AMOUNT**, **D** for a **DATE**, or **C** for a **CALCULATION**. Press **N** for none if you do not want to choose a column format.

#### a) Choosing a Text Format

If you choose a text format for a report column, you must enter the number of the field that holds the text for your column.

Type in a title for the column and press **RETURN**. The computer will tell you the number of spaces you have for the column title, and it will center the column for you.

Look at the information listed in the report column. If you are satisfied with the format, press **N** for no changes, and you can continue. To modify your design for this column, press **Y** and you can modify it.

## The Extended Print Feature (con't.)

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### b) Choosing an Amount Format

If you choose an amount format for a report column, you must enter the number of the field that holds the amount for your column.

Enter a number from 0 to 9 to indicate the number of digits you want to the right of the decimal point. If you want your numbers printed like money, enter 2, and your values will appear as 12.00, 123.78, 1234.89, and so on.

Now enter a number from 1 to 9 to indicate the number of digits you want to the left of the decimal point. For example, if your numbers are all around 1000, enter a 4 to indicate 4 digits to the left of the decimal point.

**NOTE:** The computer uses your entries for significant numbers right and left of the decimal to determine the size of the column and as a guide when rounding numbers. If a number is too large to fit in a column, the computer prints out \*\*\*\*\* on your report.

Next type in a title for the column and press **RETURN**. The computer will tell you the number of spaces you have for the column title, and it will center the column for you.

In response to the prompt CHANGES?(Y/N), look at the information listed in the report column. If you are satisfied with the format, press **N** for no changes, and you can continue. To modify

# The Extended Print Feature (con't.)

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your design for this column, press **Y** and you can modify it.

## c) Choosing a Date Format

If you choose a date format for a report column, you must enter the number of the field that holds the date for your column.

Next type in a title for the column and press **RETURN**. The computer will tell you the number of spaces you have for the column title, and it will automatically center the column for you.

In response to the next prompt, **CHANGES?(Y/N)**, look at the information listed in the report column. If you are satisfied with the format, press **N** for no changes, and you can continue. To modify your design for this column, press **Y** and you can modify it.

**IMPORTANT NOTE:** To reset the **DATA MANAGER 2** Extended Print program while you are running it, press **SHIFT** and **CLR/HOME** at the same time.

## d) Choosing a Calculation Format

If you choose a calculation format for a column in your report, you will see the following prompt on your display:

**ENTER THE CALCULATION FOR COLUMN  
XX?**

## The Extended Print Feature (con't.)

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Under the word "CALC" near the top of your display you will see "C#=" (we use the symbol "#" here to represent the column number where your first calculation will be located). Enter an algebraic equation that you want the computer to perform in this column number. The calculation may use values from other fields or columns as components in the formula. The list below shows the typical elements that go into specifying a formula for a calculation field.

( ) Parentheses can be used to specify the order of calculation in your formula

+ Addition

- Subtraction

\* Multiplication

/ Division

↑ Raise to a power (exponentiation)

**f##** Used to specify a field for calculation. For example, f2 means you want to use the amount in field 2 for a calculation; f12 means field 12, and so on.

**c##** Used to specify a column from your report. c2 means you want to use the amount from column 2.

## The Extended Print Feature (con't.)

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### Example:

To display the sum of the amounts in column 1 and field 8 in column 3, enter the formula  $c3 = c1 + f8$  in column 3.

While entering your formulas, you may use the **INST/DEL** key to erase errors and help you modify your calculations.

When you have finished entering each calculation, press **RETURN**. You will see the prompt **CHANGES?(Y/N)**. Look over the calculation you entered. If you are satisfied with your entry, press **N** and you will continue. To modify the calculation, press **Y** and you can enter a new one.

If you press **N**, enter a number from 0 to 9 to indicate the number of digits you want to the right of the decimal point. If you want your numbers printed like money, enter 2, and your values will appear as 12.00, 123.78, 1234.89, and so on.

Next enter a number from 1 to 9 to indicate the number of digits you want to the left of the decimal point. For example, if your numbers are all around 1000, enter a **4** to indicate 4 digits to the left of the decimal point.

**NOTE:** The computer uses your entries for significant numbers right and left of the decimal to determine the size of the column and as a guide when rounding numbers. If a number is too large to fit in a column, the computer prints out **\*\*\*\*\*** on your report.

# The Extended Print Feature (con't.)

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Finally, you will be asked to enter a title for your calculation column. Enter a title, and then press **RETURN**. The computer tells you how many spaces you have available for the column title and automatically centers the title for you. You will be given another chance to make changes before you move to the next part of the report writer.

**NOTE:** If you enter a calculation that doesn't conform to the rules of algebra (such as a formula containing division by zero), you may see some results that you don't understand. Check your calculation to be sure you are entering it correctly.

## 4) Making Changes to Your Format

After entering your columns, you will have an opportunity to view and modify a column, to insert a new column into the format, or to add a column to the end of your format.

### a) Viewing and Modifying Your Column Information

To view and modify the format for a column of your report, press **V** in response to the prompt **VIEW/MOD, INSERT, OR ADD?(V/I/A/N)**. Press **N** if you do not want to change your format.

Next enter the number of the column you want to view or modify. The column format will then appear on your screen and you now have an opportunity to make changes.

## The Extended Print Feature (con't.)

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The next prompt you will see is CHANGES?(Y/N). Press **Y** if you want to make changes or press **N** if you do not want to change your format. If you press **Y**, follow the instructions in step 3, "Choosing a Column Format", to modify your columns.

After you have modified your column format, you have a chance to delete the entire column. To do so, press **Y** in response to the prompt DO YOU WANT TO DELETE COLUMN?(Y/N). If you press **N**, you will return to the VIEW/MODIFY prompt. Press **N** again if you do not wish to make any changes to your columns.

### b) Inserting Columns into Your Format

To insert a new column between two columns, press **I** in response to the prompt VIEW/MOD, INSERT, OR ADD?(V/I/A/N). Press **N** if you do not want to insert a column.

If you press **Y**, you must enter the number of the column in front of which you want to insert the new column. The new column number will be shown on the display and you will then be asked TEXT, AMOUNT, DATE, OR CALC?(T/A/D/C/N). Now select a format for your new column as discussed in step 3, "Choosing a Column Format."

### c) Adding New Columns

To add a new column to the end of your format, press **A** in response to the prompt VIEW/MOD, INSERT, OR ADD?(V/I/A/N). The new column

## The Extended Print Feature (con't.)

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number will appear on your display and you will see the prompt TEXT, AMOUNT, DATE, OR CALC?(T/A/D/C/N). Now select a format for your new column as discussed in step 3, "Choosing a Column Format".

### d) When You Are Finishing Making Changes

If you have no further modifications or additions for your column format, press **N** in response to VIEW/MOD, INSERT, OR ADD?(V/I/A/N).

**NOTE:** The computer has now stored your report format in its memory. If you turn your computer off, you will lose your column designs. You then have to re-enter them. When you return to the report column formatting section from the menu, you will see the prompt NEW FORMAT?(Y/N). If you want to erase the last column format you designed, press **Y**. To reuse the last column you designed, press **N** and you can modify or add to your previous design.

### 5) Saving a Report Format

The next prompt you will see is SAVE REPORT FORMAT?(Y/N). Now you have a chance to store your report format on your UTILITY disk. You don't have to re-design a report format every time you want to use it. You just retrieve it from your UTILITY disk.

To save a report format, press **Y**. Then follow the disk placement prompts. Type in the name of the report

## The Extended Print Feature (con't.)

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format you want to load and press **RETURN**. The computer will load the report format from your UTILITY disk.

Now remove your UTILITY disk from the disk drive. Put your DATA MANAGER 2 data disk in your disk drive and press **RETURN** to continue.

### 6) Printing Your Report

Now you can print out your report. When the prompt PRINT REPORT OR RETURN TO MENU?(P/M) appears, press **P** to print out your report or **M** if you want to return to the menu without printing your report.

If you press **P** in response to the above prompt, you will see a number of prompts that ask you to specify the group of records to be used for your report.

Now type in a name for your report and press **RETURN**. The computer will center the title and use it as a heading for your report.

Type in the number of the record you want the report writer to start with. Then press **RETURN**. If you press **RETURN** only, the report writer starts with the first record on your data disk.

Type in the number of the record you want the report writer to end with. Then press **RETURN**. If you press **RETURN** only, the report writer stops after printing the last record on your data disk.

## The Extended Print Feature (con't.)

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In response to ALL RECORDS OR LAST SEARCH? (A/L), press **A** to use *all* the information stored on your data disk, or press **L** for only the records you isolated in the *last* search.

Next in response to IS YOUR PRINTER CONNECTED?(Y/N), press **Y** if your printer is connected, or press **N** if it is not. If you press **Y**, your printer will print out your report.

**NOTE:** When the prompt IS YOUR PRINTER CONNECTED?(Y/N) appears on your screen, you have an opportunity to change the device address of the piece of equipment on which you want to print your labels. You should do this if you want to view your label information on your monitor instead of printing them on your printer. To do this, press the **C** and **P** keys at the same time. When you see the prompt ENTER DEVICE NUMBER?, press **3** if you want to view the information on your screen or **4** if you want to print it on your printer (if you do not change the device address, the system automatically prints on your printer).

Then you have an opportunity to change the secondary address of your interface. You may want to do this if your interface has trouble operating with this program. (Consult your interface manual for more information on secondary addresses.) Enter the address recommended by your interface manual.

## The Extended Print Feature (con't.)

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At this time, you also have the option to send a printer command to your printer. You should do this if you want to print in a special typeface. To do this, press the **⌘** and **C** keys at the same time. When you see the prompt ENTER CODE?, enter the code you want to send to the printer (see your printer manual for more information on printer codes). Then press **RETURN** until you see the prompt IS YOUR PRINTER CONNECTED?(Y/N) again.

Now the computer will print out the report. At the bottom of the screen, you will see the number of the record currently being printed. To stop printing, press the **RUN/STOP** key.

### 7) Storing Reports

You can now store your finished report on your UTILITY disk. When you see the prompt STORE REPORT ON DISK?(Y/N), press **Y** to store the report on disk. If you don't want to store the report, press **N** and you will return to the Extended Print menu. If you press **Y**, remove your DATA MANAGER 2 data disk from the disk drive. Place your UTILITY disk in your disk drive and secure the gate. Then press **RETURN** to continue.

Next type in the name for the report you want to store, then press **RETURN**. The computer will let you know when your report has been stored on your UTILITY disk.

## The Extended Print Feature (con't.)

---

**NOTE:** You can store up to 50 report lines under one name. If your report has more than 50 lines, you must print it out and store it in sections of up to 50 lines each.

Now remove your **UTILITY** disk from the disk drive. Put your **DATA MANAGER 2** disk in your disk drive and press **RETURN** to continue. You will return to the main program menu.

### G. Printing Records

The "Print Records" feature lets you print a group of your records on your printer. To print records, select menu item 8 on the Extended Print menu.

#### 1) Specifying Records to Print

First type in the number of the record you want the computer to start with. Then press **RETURN**. If you press **RETURN** only, the computer starts with your first record.

Now type in the number of the record you would like the computer to end with. Then press **RETURN**. If you press **RETURN** only, the computer stops after printing the last record on your data disk.

#### 2) Specifying Fields to Print

Next, type in the number of the field in your format that you would like the computer to start with. Then press **RETURN**. If you press **RETURN** only, the computer starts with your first field.

## The Extended Print Feature (con't.)

---

Type in the number of the field in your format that you want the computer to end with. Then press **RETURN**. If you press **RETURN** only, the computer stops after printing the last field of your format.

Next press **A** to print all your records on the printer. Press **L** to print only the records from the last search.

### 3) Printing Your Records

Lastly, you will see the prompt IS YOUR PRINTER CONNECTED?(Y/N). Check your printer and press **Y** if your printer is connected. Press **N** if it isn't. The computer should now print out your records. To stop the printing, press the **RUN/STOP** key and keep it pressed until the printing stops. When the computer stops printing, you will return to the program.

## H. Opening A New File

After you are finished printing records, labels, or reports using one of your data files, you may want to print information from another file. To do this, you must first open a new file using menu item 9, OPEN NEW FILE/RETURN TO DM2. To open a new file, follow these steps:

Select menu item 9 on the Extended Print menu. You will then see the prompt DO YOU WISH TO OPEN A NEW FILE?(Y/N). Press **Y** for yes.

Next you will be asked INITIALIZE UTILITY DISK? (Y/N). If you do not want to initialize a UTILITY disk, press **N**. If you want to initialize a new UTILITY disk to hold your work from the Extended Print section, press **Y**, and follow the prompts (see section V-B).

## The Extended Print Feature (con't.)

---

You will now be asked to insert your DM2 data disk in the drive and press **RETURN**. Place the disk that contains the new file you want to work with in the drive and press **RETURN**. Your new file will be opened and you can begin working with it.

### I. Interfacing Information with the Timeworks WORD WRITER

At last . . . you have your address list or report stored on your UTILITY disk. Now you can interface your DATA MANAGER 2 and WORD WRITER programs to print out form letters and reports. To take advantage of this interface capability, follow the instructions in the WORD WRITER manual.

### J. Exiting the Extended Print Program

When you are finished using the Extended Print feature of the DATA MANAGER 2, select item 9, OPEN NEW FILE/RETURN TO DM2, on the Extended Print program menu. This menu item allows you to return to the DATA MANAGER 2 main program. Follow the prompts on your screen to use either of these options.

## VII. Making A Backup Of Your Data Disk

---

DATA MANAGER 2 comes complete with a special utility program for making a backup copy of your data. The procedure you should use is as follows:

IF YOU ARE USING ONE OR TWO 1541 DISK DRIVES:

1. Insert Side 2 of your program disk.
2. Enter LOAD "SINGLE 1541",8 or LOAD "TWO 1541's",8 and press **RETURN**.
3. When READY appears on the display, type RUN and press **RETURN**.
4. Remove your program disk.
5. Follow the instructions shown on the display, in the box labelled OPERATOR INTERVENTION.
6. Enter "PROGRAM OPERATION CODE"  
The PROGRAM OPERATION CODES are:  
B = BAM select backup  
D = Direct backup  
■ Select B, and press **RETURN**.
7. Enter "DESTINATION DISK NAME"  
(This is your new backup disk.)  
■ Enter any name you choose, and press **RETURN**.
8. Enter "DISK ID NUMBER"  
■ Enter a 2-digit disk ID number, and press **RETURN**.
9. A flashing message will read "INSERT DESTINATION DISK INTO DRIVE"  
■ Insert disk, and press **RETURN**.  
@ Execution will begin.
10. A flashing message will read "INSERT SOURCE DISK INTO DRIVE"  
(This is the data disk you are copying from.)  
■ Insert disk, and press **RETURN**.  
@ Execution will continue.

# Making a Backup of Your Data Disk (con't.)

---

11. A flashing message will read “VERIFY SOURCE DISK FOR BACKUP”
  - Check the box labelled DISK to verify that the correct disks are selected.
  - Press **RETURN**.
  - @ Box labelled EXECUTING will read “READING DATA INTO BUFFER”.  
(This is your computer storage area.)
  
12. When buffer is full, box labelled OPERATOR INTERVENTION will flash the following message “INSERT DESTINATION DISK INTO DRIVE”
  - Insert disk, and press **RETURN**.
  - @ Box labelled EXECUTING will read “WRITING DATA FROM BUFFER”.
  
13. When buffer is empty, box labelled OPERATOR INTERVENTION will flash the following message “INSERT SOURCE DISK INTO DRIVE”
  - Insert disk, and press **RETURN**.
  - @ You will return to step 12.
  - @ Looping has begun. The number of loops required depends upon the amount of data stored on your disk.
  
14. When back-up is completed the box labelled EXECUTING will read “BACKUP FINISHED”
  - @ The box labelled OPERATOR INTERVENTION will flash the following message “REMOVE DESTINATION DISK FROM DRIVE”.
  - Remove the disk. **THIS IS YOUR BACKUP DISK!**
  - Turn the computer OFF. **WARNING!!** Turning off the computer is mandatory!

## VIII. Resetting The X-Sort Sequence

---

DATA MANAGER 2 also comes with a program which will save you time and aggravation if there ever happens to be a power failure while the X-SORT sequence is being rewritten onto your data disk. If a failure occurs or if your X-SORT sequence becomes unusable for any reason, follow the instructions below to save any data on your data disk.

**NOTE:** A few records may be lost when using the SORTFIX program. Also, SORTFIX will nullify any previous sorts you performed on your records. Be sure to re-sort your data after running SORTFIX.

- 1) Hook up your computer, disk drive and printer.
- 2) Turn on all devices.
- 3) Insert Side 2 of the program disk into the disk drive.
- 4) Type LOAD"SORTFIX",8 and press **RETURN**. The computer will load the SORTFIX program.
- 5) After **READY** appears on the screen and the ■ is flashing, place your data disk in the disk drive, type **RUN**, and press **RETURN**.
- 6) The computer will rewrite the X-SORT sequence on your data disk.



## IX. Troubleshooting

---

PROBLEM	REMEDY
PROGRAM WILL NOT LOAD	<ol style="list-style-type: none"><li>1. Turn off disk drive and computer, and try again.</li><li>2. Check directory to see if program is present.</li><li>3. Clean heads on disk drive.</li><li>4. Check computer hookup.</li><li>5. Make sure PROGRAM DISK, not data disk, is in disk drive.</li></ol>
DEVICE NOT PRESENT ERROR	Check hookup and power supply for all devices.
READ OR WRITE ERROR	<ol style="list-style-type: none"><li>1. Insert correct disk into disk drive.</li><li>2. Use a better quality disk for data.</li><li>3. Replace data disk with previous backup.</li><li>4. Remove write protection tape from data disk.</li></ol>
PROGRAM WILL NOT ADVANCE PAST PASSWORD	Use correct password.
CHECKERBOARD FOUND IN DATA (due to power problems)	Delete record containing checkerboard.
SYSTEM FROZEN, SCREEN BLANKS OUT, PROGRAM LOST (due to power fluctuations)	Restart all devices and reload the program.

## PROBLEMS WITH YOUR DATA

---

1. If you ever find that all of your records look like record number 1 on your disk, run the SORTFIX program, which is discussed in section VIII of this manual. SORTFIX will re-order the records on your data disk.
2. If the last group of records you added to your file appear to be missing, you need to run the RESET program. This program will reset the counter on your data disk to reflect the total number of records you should have. To run this program, follow these steps:
  - a. Insert side 2 of your DATA MANAGER 2 program disk in the disk drive, type LOAD"RESET",8 and press **RETURN**. When the word READY appears on your screen, type RUN and press **RETURN**.
  - b. When asked for your authorization number, press **⌘**.
  - c. Insert your DATA MANAGER 2 data disk when prompted, and enter the total number of records you should have on your disk.

**NOTE:** If you don't remember the exact number of records that should be on your disk, make a good guess. If the number you enter is too high, all of the records above your actual record number will display a "string too long" message when you try to view them in the DATA MANAGER 2 program. For example, if you actually have 100 records, but you enter 105 in the RESET program, record positions 101 through 105 would

## Troubleshooting (con't.)

---

display a "string too long" message when you try to view them. If this happens to you, simply repeat the above procedure and enter a lower number.

3. When attempting to use the DATA MANAGER 2 program, if the program doesn't seem to recognize your data disk, you may have lost one or more of the files on the disk. (This is sometimes caused by power, equipment, or data disk failure.) To find out if you need to use the following procedure, insert your DM2 data disk. Type LOAD"\$",8 and press **RETURN**. When READY appears, type LIST and press **RETURN**.

You should have 3 files on the disk: DATA, GENIF, and SORTIF. If SORTIF is missing, you need only to run the SORTFIX program that is explained in Section X of your DM2 manual. If GENIF is missing, the following procedure may help you to recover your data.

- a. Initialize a new blank disk using the same format as your OLD data disk. It is extremely important that the lengths of the fields in this format exactly match the lengths originally specified. (Titles and classifications aren't quite as important.)
- b. After initializing the NEW disk, insert side 2 of your DM2 program disk. Type LOAD"RESET",8 and press **RETURN**. When READY appears, type RUN and press **RETURN**. When asked for your authorization number, press **C X**. When prompted to insert your data disk, insert your NEW data disk. Now enter the total number of

## Troubleshooting (con't.)

---

records you have on your OLD disk. (See the note for number 2, above, for help in entering this number.)

- c. Now load the DM2 main program. When prompted to insert your data disk, insert your NEW disk. When the menu appears, select option 3, "View General Information".
- d. When prompted for CHANGES? (Y/N), select  Y. Now modify the date to the current date. Return to the menu. Remove your NEW disk and insert your OLD disk.
- e. Select option 12, "Terminate Program". After information has been updated to the disk and the program is ended, reload DM2 and check your data.

**OTHER PROBLEMS? Call Timeworks: 312-948-9208**

## X. Quick Reference Section

---

### A. Facts at Your Fingertips

---

#### Adding Records (Section V-B)

1. Select **F** on the main menu.
2. Enter the data for all of your fields. Use the **F1** key to bring information forward from the same field in the previous record.
3. Modify this record by pressing **Y** in response to the CHANGES? prompt and following the prompts on your screen.
4. When you have made all of your changes, press **N** in response to the CHANGES? prompt.
5. Press **C** to continue entering records or **M** to return to the main menu.

---

#### Creating an Address List for Form Letter Printout (Section VI-E)

1. Select **F1** on the main menu.
2. Select **7** on the Extended Print menu.
3. Enter the width of your addresses (a number from 1 to 80) and the number of lines in your addresses (a number from 1 to 17).
4. Specify the information for each line of your addresses. When you have filled all of your address

## Quick Reference Section (con't.)

---

lines, press **Y** in response to the CHANGES? prompt if you want to modify your address format. Follow the prompts. Press **N** if you do not want to make modifications.

5. Press **Y** in response to the PRINT LABELS? prompt.
6. Enter the numbers of the first and last records you want to use for your address list.
7. Press **A** to use all of the information stored on your data disk, or press **L** to use only those records from the last search.
8. Press **Y** when your printer is ready to print.
9. Press **Y** and follow the prompts to store your addresses on disk.
10. Refer to your WORD WRITER manual for information on printing form letters using your address list.

---

### Deleting Records From Your Data Base (Section V-C)

1. Select **2** on the main menu.
2. Press **S** to delete a single record or **L** to delete all records found in the last search. If you press **S**, enter the number of the record you want to delete, and press **Y** to view the record before deletion.
3. Press **Y** to delete the record(s).

## Quick Reference Section (con't.)

---

4. Press **Y** to delete more records, and return to step 2 above. When you have finished deleting records, press **N** in response to the DELETE MORE RECORDS? prompt.

---

### Moving Records In Your Data Base (Section V-L)

1. Select **10** on the main menu.
2. Press **M** to move records.
3. Enter the record number you want to move.
4. Enter the number of the record's new position.
5. The record will be moved to the new position, and the menu will appear on the screen.

---

### Opening a Data Base File (Section V-M)

1. Select **12** on the main menu.
2. Press **Y** when asked if you want to open a file.
3. Insert your data disk in the disk drive and press **RETURN**.
4. Enter your password for this file. The file will be opened.

---

### Printing Labels (Section VI-E)

See "Creating an Address List for Form Letter Printout" above.

# Quick Reference Section (con't.)

---

---

## Printing Records (VI-G)

1. Select **F1** on the main menu.
2. Select **8** on the Extended Print menu.
3. Enter the beginning and ending record numbers of the group you want to print.
4. Enter the beginning and ending numbers of the fields you want to print.
5. Press **A** to print all of your records or **L** to print only those found in the last search.
6. Press **Y** when your printer is ready. Your records will be printed.

---

## Sorting Your Data Base Information (Section V-L)

1. Select **10** on the main menu.
2. Press **S** to sort records.
3. Press **C** for an alphabetical sort, **D** for a date sort, or **N** for a numerical sort.
4. Follow the disk placement prompts on your screen.
5. Enter your password.
6. Enter the field number for the sort.
7. Press **I** for an increasing sort or **D** for a decreasing sort. The computer will sort your records.

## Quick Reference Section (con't.)

---

8. Follow the disk placement prompts on your screen. The main menu will appear.

---

### Statistics and Graphics (Section VI-I and V-J)

1. Select **3** on the main menu.
2. Press **Y** in response to STATISTICS?.
3. Enter the field number that contains the data you want to analyze.
4. Press **A** if you want to use all of your records, or press **L** to use only those records found in the last search.
5. Enter the first and last record numbers of the group you want to use. The computer will tabulate your statistical data.
6. Press **Y** to view a frequency bar chart for your data. The bar chart will appear on your screen. To view an X-Chart, press **N** and move on to step 6.
7. Press **Y** to view an X-Chart. (If you press **N** in response to the X-CHART? prompt, you will return to the menu.)
8. Press **S** to search indexes you created in your data file, or press **U** to search your records and specify ranges for your amounts or dates. If you press **U**, you must now enter **A** to categorize your records according to amount range or **D** to categorize your records according to date range.

## Quick Reference Section (con't.)

---

9. Enter the number of the field that contains the information you want to use as an index. (For the user-defined method, this must be an amount or date field, depending on your response in step 8.)
10. Enter the number of the numeric field that holds the data you want to total. (For the user-defined method, skip to step 12.)
11. Press **X** to search your records in X-Sort sequence or **D** to search your records in the order they appear on your disk. (If you are using the standard method, skip to step 13.)
12. Follow the prompts to specify up to 10 ranges for your X-Chart.
13. Press **A** to search all of your records or **L** to search only those records found in the last search.
14. Enter the first and last record numbers of the group you want to use. The computer will generate your X-Chart.
15. Press **M** to return to the menu.

---

### Viewing/Modifying by Amount Range (Section V-F)

1. Select **G** on the main menu.
2. Enter the lowest and highest amounts of the range you want the computer to use for the search.
3. Enter the field number where you want the computer to search.

## Quick Reference Section (con't.)

---

4. Enter the first and last numbers of the records you want the computer to use for the search. The computer will perform the search.
5. Press **Y** to view the matches.

---

### Viewing/Modifying By Date Range (Section V-G)

1. Select **7** on the main menu.
2. Enter the earliest and latest dates in the range that you want the computer to use for the search.
3. Enter the field number where you want the computer to search.
4. Enter the first and last numbers of the records you want the computer to use for the search.
5. Press **Y** to view the matches.

---

### Viewing/Modifying By Record Element (Section V-E)

1. Select **5** on the main menu.
2. Enter the item you want the computer to search for in your data base.
3. Enter the field number where you want the computer to search.
4. Enter the first and last numbers of the records you want the computer to use for the search.

## Quick Reference Section (con't.)

---

5. Press **Y** to view the matches.

---

### Viewing and Modifying Your General Information and Password (Section V-A)

1. Select **3** on the main menu.
2. Press **Y** to make changes to the General Information display.
3. Enter the number of the item you want to change, and enter the new information for that item.
4. Make any screen color changes at this time. Then press **F7** to return to the menu.

Note:

If you don't require password protection for your data, enter the word "override" for your password.

---

### Writing Reports (Section VI-F)

1. Select **11** on the main menu.
2. Select **6** on the Extended Print menu.
3. Press **Y** to load a previously created format. To create a new format, press **N** and move on to the next step.
4. Enter a title for your report and insert your data disk. Press **RETURN**.

## Quick Reference Section (con't.)

---

5. Specify the column type (text, amount, date, or calculation) for each report column. Follow the prompts on your display to enter information for each column type. If you specify a calculation column, enter the calculation for the column.
6. Follow the prompts to modify your format.
7. When you have finished modifying the format, press **N** in response to VIEW/MOD, INSERT, OR ADD? (V/I/A/N). Then press **Y** and follow the prompts to save the report format on your data disk.
8. Insert your data disk in the drive and press **RETURN**. Then press **P** to print your report.
9. Enter a title for your report.
10. Enter the beginning and ending records to be used for the report.
11. Press **A** to use all of your records or **L** to use those records found in the last search.
12. Press **Y** if your printer is connected. Your report will be printed.
13. Press **Y** and follow the prompts to store your report on disk.

# Quick Reference Section (con't.)

---

## B. Glossary

- AVERAGE:** The mean of a given number of values computed by adding those values and dividing the sum by the number of values.
- BACKUP:** A duplicate set of data to be used in case the original is lost, destroyed, or accidentally altered.
- BYTE:** In computer language, the name given to eight bits of information. For our purposes, one byte = 1 character.
- CHARACTER:**
- Numeric:** 0 through 9
  - Alphabetic:** A through Z
  - Symbol:** ! - # \$ % ' \* + / = ? ( )
  - Alphanumeric:** Any combination of numerics, alphabets, or symbols.
- CHRONOLOGICAL:** By date.
- COMMAND:** An instruction for the computer to follow.
- CURSOR:** The computer-generated square that pinpoints your position on the display.

## Quick Reference Section (con't.)

---

DATA:	The information you enter to be processed.
DATA BASE:	A collection of data.
DATA DISK:	The disk created to store your data base information.
DELETE:	To remove from the FILE.
FIELD:	A number of characters that represents one specific piece of data.
FILE:	One or more similar RECORDS grouped together. Ex: Mailing list.
FORMAT:	A predetermined arrangement of characters, fields, lines, punctuation, page numbers, etc.
FUNCTION KEY:	The special set of keys on your computer identified as <b>F1</b> , <b>F2</b> , <b>F3</b> , etc.
INCREMENT:	The value that corresponds to the width of a single bar in a frequency chart. This value is found by subtracting the lowest amount in a range of records from the highest amount in that range and then dividing by 32, the maximum number of bars in a DATA MANAGER 2 frequency chart.

## Quick Reference Section (con't.)

---

INITIALIZATION:	To create a file the first time.
INTERFACE:	A connection between two systems or devices.
LAST SEARCH:	The most recent search performed.
MM/DD/YY:	The calendar date, MONTH/DAY/YEAR. EX: 03/05/88 for March 5, 1988.
PASSWORD:	Your own combination of alpha- numerics to identify yourself to the computer and prevent access to your information by others. (A security feature.)
PROGRAM DISK:	The disk you purchased, containing the DATA MANAGER 2 program.
PROMPT:	The line of words, located at the very bottom of your screen, that requests your response. Ex: ENTER FIELD NUMBER.
RECORD:	One or more FIELDS linked together like a chain.

## Quick Reference Section (con't.)

---

SEARCH:	A systematic examination of information in a specific field of interest.
SEARCH ITEM:	A group of characters within any given field that the computer will search for.
SORT:	To arrange items of information in a desired sequence.
STANDARD DEVIATION:	A measure of how much a value varies from the average amount.
SUM:	The total of values added together.
X-CHART (Cross-Chart):	The chart in DATA MANAGER 2 which enables you to break down statistics by indexed categories and view them graphically.
X-SEARCH: (Cross-Search):	TIMEWORKS' exclusive cross-search feature. Allows you to cross-search any categories in your Data File to locate specific items.
X-SORT (Cross-Sort):	TIMEWORKS' exclusive indexed sorting feature. Allows you to arrange your stored numbers alphabetically, numerically, or chronologically.



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