OS-9 Profile®

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OS-9 PROFILE

10 9 8 7 6 5 4 3 2 1

About This Manual

This manual shows you how to use OS-9 Profile. The first 4 parts are a reference for the OS-9 Profile features. The last part consists of a sample session. The appendices and index appear at the end of this manual. We recommend that you read through the entire manual then complete the sample session before you begin setting up your own database.

Part 1, "Getting Started"

Part 1 introduces you to OS-9 Profile. The equipment requirements and loading instructions are included. Part 1 consists only of Chapter 1.

Part 2, "Setting Up or Changing a Database"

Part 2 shows you how to set up your database file. The steps necessary to set up your database and specific instructions for each step are included. Part 2 is comprised of Chapters 2-5.

Part 3, "Using Your Database"

Part 3 details the daily operation of OS-9 Profile. Specific instructions for daily operation are included. Part 3 includes Chapters 6 and 7.

Part 4, "Maintaining Your Files"

Part 4 gives you information on some of the more advanced OS-9 Profile features. Instructions for using the file management utilities and interfacing with the OS-9 operating system are presented in Part 4. Part 4 is comprised of Chapters 8-10.

Part 5, "Sample Session"

Part 5 contains a sample session that illustrates, step-by-step, the procedures necessary for setting up and using an OS-9 Profile database file. So that you can go through it more

quickly, much of the sample session data is already set up for you. Additional samples are also included for you to try on your own.

Appendices

Appendix A contains instructions for transferring database files created with Color Disk Profile to your OS-9 Profile system. Appendix B lists the most common system errors that you can encounter as you use OS-9 Profile. Appendix B contains a listing of the BASIC program that loads OS-9 Profile.

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Part 2 Setting Up or Modifying a Database

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PART 1
GETTING STARTED

Chapter 1

Introduction

OS-9 Profile is your key to managing information with your Color Computer. You can store nearly any type of data and retrieve it easily with a few quick keystrokes. You can design the way the screen displays your data and create reports that show you any information you choose. OS-9 Profile offers almost limitless possibilities in data management as well as many versatile features:

- As many as 9 formats, defined by you, with 1-3 screens each, available for displaying data on the screen
- As many as 9 formats, defined by you, available for printing or displaying reports
- As many as 9 sorting methods, defined by you, available for printing or displaying reports
- As many as 3 levels of sorting available
- Reports can be printed on paper, displayed on the screen, saved to a diskette, or sent to another device
- Screens and reports can contain fields calculated by OS-9 Profile based on other fields
- Dynamic menus that show only the options that are currently available
- An option that lets you interface with the OS-9 operating system
- Options that read a Dynacalc™ file into a database and save a database file in Dynacalc format

You can store as many records as you have room for on your diskette. If you are using more than 1 disk drive, you can store your data on a separate diskette. A record can be defined to include as many as 35 fields.

Equipment Requirements

To use OS-9 Profile, you need the following equipment:

- Tandy Color Computer with 64K RAM
- Television Set (color recommended)
- At least 1 Disk Drive (2 or more are recommended)

Optional equipment:

- Printer with a serial interface, such as the Tandy DMP-105, DMP-110, DMP-120, DMP-430, or DWP-210
- OS-9 Disk Operating System
- Additional disk drives

OS-9 Profile comes with a minimum OS-9 operating system. Neither a complete OS-9 operating system nor additional disk drives are required to run the system. However, some of the more advanced features of OS-9 Profile require either a complete OS-9 operating system or at least 1 additional disk drive.

Protecting Your Diskettes

Before you use OS-9 Profile, you should make a backup (or working copy) of the diskette that came with this package. Use your normal backup procedure (using the Color BASIC or OS-9 operating system). Refer to your *Color Computer Disk System* manual or *Getting Started With OS-9* manual for instructions. Place the original program diskette in a safe place, and use only your working copy for running the program.

You should also make periodic backups of your database diskette(s) in order to avoid data loss. We recommend that you back up your diskette(s) after each day's use. More frequent backups may also be needed on days of heavy use or if you make major revisions to your database.

OS-9 Profile Terminology

Before you begin using OS-9 Profile, you should become familiar with some of the terms used in this manual.

The basic unit of information used in OS-9 Profile is called a *field*. A field is a single piece of information (data), such as a name, telephone number, street address, city, state, or zip code.

A set of related fields comprises a *record*. Using the fields from the previous example, a record could contain the name, telephone number, street address, city, state, and zip code of one person.

A collection of several related records is a *database*. Each record in a database could contain information for a different person. Databases are stored on a diskette in *files*.

This information used to illustrate the parts of a database is typical of a simple address book. Your database is probably more complex than this, but this gives you an idea of how the parts fit together.

In addition, there are a few more terms you should know:

The *cursor* is the small blue rectangular box that marks your current position on the screen. (The color of the cursor depends on the color adjustment of your monitor.) The arrow keys normally move the cursor on the screen.

A *default* refers to a response to a prompt that is supplied by OS-9 Profile. Many prompts include a default response. You can replace a default response with your own response. If data has previously been entered into a field, that data is the default.

Scrolling refers to moving the cursor on the screen so that another portion of a format or report comes into view.

Loading and Exiting Profile

Before starting OS-9 Profile, make a backup of the program diskette that came with this package. Place the original program diskette in a safe place, and use only the backup to run OS-9 Profile.

The first steps in starting OS-9 Profile are to turn on the computer and load the OS-9 operating system. After the operating system is loaded, you can load the OS-9 Profile programs.

Caution

Never turn the computer or disk drives on or off with diskettes in the drives.

Turning On the Computer and Loading OS-9

1. Turn on your computer system in this order: peripherals (disk drives, printer, and so forth), monitor or television, then the computer. The screen shows:

```
DISK EXTENDED COLOR BASIC 1.x
COPYRIGHT (C) 1981 BY TANDY
UNDER LICENSE FROM MICROSOFT

OK
```

   x refers to the version of Color BASIC your computer uses.

2. Use your standard OS-9 boot procedure to start OS-9 Profile. Then, follow the procedure listed in "Loading the OS-9 Profile Programs."

   If you do not have a standard OS-9 boot procedure, enter the BASIC program listed in Appendix C and save it in memory. Then, follow Steps 3-4 to load OS-9.

3. Use the BASIC program to start OS-9 by typing:

   RUN "*" ENTER

4. The date/time prompt appears:

```
                YY/MM/DD HH:MM:SS
TIME ?
```

Insert the OS-9 Profile diskette in Drive Ø, and answer the prompts.

Entering the date and time is optional. You can type only a date and press [ENTER]. Or, you can skip the prompt completely by pressing [ENTER]. If you enter a date and/or time, enter them in the exact format shown, and press [ENTER]. The OS-9 operating system prompt (OS9:) appears. Now, follow the procedure listed in "Loading the OS-9 Profile Programs."

Loading the OS-9 Profile Programs

If you have more than 1 disk drive, you can use a data diskette to increase your storage capacity. Insert a formatted diskette into Drive 1. You create your database and save your records on the data diskette. (If you have a 1-drive system, you create your database and save your records on the OS-9 Profile diskette.)

At the OS9: prompt, type:

PROFILE [ENTER]

The Database Selection Page appears on the screen.

You are now ready to begin using OS-9 Profile.

Note: Any time you wish to restart the program after exiting, type **PROFILE** [ENTER] at the OS9: prompt.

Exiting OS-9 Profile

To exit Profile, press [BREAK] until the OS9: prompt appears. After you exit the program, remove the diskette(s). Turn off the printer, disk drive(s), television, and computer.

Creating or Choosing a File

After you load Profile, the Database Selection Page is displayed. The first time you use Profile, the Database Selection Page looks like this:

```
        OS-9 PROFILE vv.ee.rr
    COPYRIGHT 1985 COMPUTERWARE
      LICENSED TO TANDY CORP.
        ALL RIGHTS RESERVED

DATABASE TO ACCESS [           ]
POSSIBLE DATABASES AVAILABLE:
ADDRESS




TYPE FILENAME. PRESS <ENTER>
(PRESS BREAK TO EXIT PROGRAM)
```

Notice the copyright information. *vv.ee.rr* stands for the version number and indicates the number and type of revisions that have been made to the program.

The line below the copyright information asks the name of the file you want to select or create. It is followed by a list of all database files that are currently on the diskette.

The message at the bottom of the screen tells you to enter a filename or press BREAK to exit the system.

Creating a New File

Type a new filename, and press ENTER to create a new file. A maximum of 10 characters are allowed for database filenames. Do not use numbers, punctuation marks, or blank

spaces. (It is not necessary to press [ENTER] if your filename contains 10 characters.) The following message appears:

```
DATABASE SELECTED HAS NOT
BEEN CREATED YET.

CREATE (Y/N) ?
```

Pressing [N] tells Profile that you have decided against creating a new file. The Database Selection Page appears again.

To continue with the creation of your file, press [Y]. The screen shows ONE MOMENT - CREATING FILES. The Main Menu appears.

Choosing an Existing File

To choose an existing file, type its filename, and press [ENTER]. After you enter a filename, LOADING DATABASE appears. The Main Menu appears after the existing database file is loaded.

The Main Menu

When you create or choose a file, the Main Menu is displayed:

```
      OS-9 PROFILE vv.ee.rr
  COPYRIGHT  1985 COMPUTERWARE

       FREE:  xxxx   filename

A : VIEW OR UPDATE RECORDS
B : PRINT REPORTS
C : DEFINE RECORDS
D : DEFINE DISPLAY FORMATS [1]
E : DEFINE REPORT FORMATS [1]
F : DEFINE ACCESS METHODS [1]
G : MANAGEMENT UTILITIES
H : OS9 SYSTEM INTERFACE
I : SET SYSTEM DEFAULTS

SELECTION [ ]  (BREAK TO EXIT)
```

The amount of free memory available for sorting database records is displayed under the copyright notice. The free space is displayed in "bytes." Each byte is roughly equivalent to 1 character. The name of your database file appears to the right of the free space.

Only 3 options (C, H, and I) appear on the Main Menu when you first create a new database file. The OS-9 Profile menus are dynamic; they list only the options that are currently available. As you use various options from the Main Menu, the others are added. When opening an existing database, all options appear on the Main Menu.

Options D, E, and F on the complete Main Menu are followed by boxes. The boxes indicate the currently selected formats and access method. Do not worry about these now. You will use them later as you set up and use your database.

Choose the appropriate options from the Main Menu to either set up or modify a database, use an existing database, or maintain your database files. Refer to Chapter 2 in this manual if you are setting up a new database, Chapters 2-5 for modifying a database, Chapters 6-7 for viewing, updating, or printing the data in your database, or Chapters 8-10 for maintaining your files.

PART 2
SETTING UP OR MODIFYING A DATABASE

Steps for Setting Up a Database

Follow the procedures listed below, in order, to set up a database file. The names of the sections of this manual that explain the given procedures are shown in parentheses. (Note that Steps 4-7 can be performed in any order, as long as they follow Steps 1-3.)

1. Load the operating system, then the Profile programs. (Refer to "Loading and Exiting Profile" in Chapter 1.)

2. Create the database file, and enter the Profile system by typing a new filename at the Database Selection Page. (Refer to "Creating or Choosing a File" in Chapter 1.)

3. Define the record format for the database by adding fields to the record. (Refer to "Defining the Record Format" in Chapter 2.)

4. Review the record format to be sure you included all necessary fields. (Refer to "Viewing the Record Format" in Chapter 2.)

5. Review the individual record fields to see that they are correct. (Refer to "Viewing a Record Field" in Chapter 2.)

6. Correct any mistakes in the record fields. (Refer to "Updating a Record Field" and "Deleting a Record Field" in Chapter 2.)

7. Print a hard copy of the record format for use in defining your screens, reports, and access methods. (Refer to "Printing the Record Format" in Chapter 2.)

8. Set up your screens, the display formats, that you will use for entering your data. (Refer to Chapter 3, "Defining Display Formats.")

9. Set up the access methods that determine the order in which your data is sorted. (Refer to Chapter 5, "Defining Access Methods.")

10. Set up your report formats. (Refer to Chapter 4, "Defining Report Formats.")

Chapter 2

Defining the Record Format (Main Menu Option C)

When you define a file's record format, you specify the fields and field types. There are 4 types of Profile fields: alphanumeric, date, math, and derived.

Press [C] at the Main Menu. The Define Record Format Menu is displayed:

```
                OS-9 PROFILE vv.ee.rr
            COPYRIGHT 1985 COMPUTERWARE

        DEFINE RECORD FORMAT

        A : VIEW RECORD FORMAT
        B : PRINT RECORD FORMAT
        C : VIEW A RECORD FIELD
        D : DELETE A RECORD FIELD
        E : UPDATE A RECORD FIELD
        F : ADD A RECORD FIELD
        G : RETURN TO MAIN MENU


        ENTER SELECTION [ ]
        (PRESS BREAK TO EXIT)
```

As on the Main Menu, the Define Record Format Menu lists only the currently available options. When creating a new file, only options A, B, F, and G appear. You must use option F to add fields before you use any of the other options. After you add fields to the record format, the remaining options are added to the menu. When opening an existing file, the menu includes all the options.

Note: In this manual, we discuss the OS-9 Profile options in the order in which they appear on the menus. Refer to the "Steps for Setting Up a Database" for the correct order in which to set up a new database.

Viewing the Record Format

After you complete your record format, you can look it over to check the information. Use the View Record Format option to display a list of the record fields in your format.

1. Press [A] at the Define Record Format Menu. A list of the record fields appears.

2. Only 11 fields are shown on the screen at one time. If there are more than 11 fields in your record format, press [↑]. The screen scrolls up, and the next field appears at the bottom of the list. Field 01 scrolls off the top of the screen. Press [↓] to scroll the list back down.

The field number, size, type, and description appear for each of the fields in the list. For more specific information on a field, use option C, View a Record Field.

After you finish viewing the list, press [ENTER] to return to the Define Record Format Menu.

Printing the Record Format

After you add fields to set up a record format, review the format and the fields, and make any necessary changes, you are ready to print your format. Use the Print Record Format option to print a list of the fields in your record format. You can list the maximum of 35 fields on a single sheet of 8½" by 11" paper. Before you begin, be sure your printer is properly connected and ready to print.

1. When you are ready to print your record field list, press [B] at the Define Record Format Menu. The screen shows:

```
READY PRINTER
PRESS <ENTER> TO CONTINUE
```

2. Press [ENTER] to begin printing. The field number, size, type, and description are printed for each of the fields in the list.

Profile automatically returns to the Define Record Format Menu after printing is complete. You can also press [BREAK] to cancel the printout and return to the Define Record Format Menu.

After you complete your record format, press [G] (or [BREAK]) to return to the Main Menu.

Viewing a Record Field

After you add fields to the record format, 3 field options are added to the Define Record Format Menu. Use the View a Record Field option to check specific information on a selected field. All information you entered for the field (the number, type, length/digits, description, number of decimal places, and derivation or validation expression) appears.

1. Press [C] at the Define Record Format Menu. The screen shows:

   ```
   WHICH FIELD NUMBER?
   ```

2. Type the number of the field you wish to see. (Press [ENTER] if you type only one digit.)

   The screen appears as it did while you were entering the field information. On this screen, however, you cannot change any of the information shown.

ANOTHER (Y/N) ? appears at the bottom of the screen. Press [Y] to view another field, or press [N] to return to the Define Record Format Menu.

Deleting a Record Field

Use the Delete a Record Field option to delete a specific record field.

Note: If your database contains record data and you delete a field other than a derived one, the structure of your

database file is affected. Refer to "Changing the Record Format After Records Exist" for information on restructuring your data file. The field deletion is not recognized by OS-9 Profile until you restructure the file.

1. Press [D] at the Define Record Format Menu. The screen shows:

   ```
   WHICH FIELD NUMBER?
   ```

2. Type the number of the field you wish to delete. (Press [ENTER] if you type only one digit.)

   The screen appears as it did while you were entering the field information. On this screen, however, no changes are allowed. The only option is to delete the entire field.

3. The screen shows:

   ```
   IS THIS THE ENTRY (Y/N)?
   ```

   If this is the field you wish to delete, press [Y]. If not, press [N].

4. The screen shows:

   ```
   ANOTHER (Y/N)?
   ```

   Press [Y] to delete another field, or press [N] to return to the Define Record Format Menu.

Updating a Record Field

Use the Update a Record Field option to update or change any of the information items in a specific record field.

Note: If your database contains record data and any of the changes you make affect the structure of your database file, you must restructure your database. Refer to "Changing the Record Format After Records Exist" for information on restructuring your data file.

1. Press [E] at the Define Record Format Menu. The screen shows:

   WHICH FIELD NUMBER?

2. Type the number of the field you wish to update. (Press [ENTER] if you type only one digit.)

   The screen appears as it did while you were entering the field information.

3. Change any of the information shown, pressing [ENTER] or [↓] to move to the next item.

4. After the field is correct, move to the message at the bottom of the screen, (PRESS ENTER AFTER CHANGES), and press [ENTER]. The field is saved, and the screen shows: ANOTHER (Y/N)?

5. Press [Y] to update another field, or press [N] to return to the Define Record Format Menu.

Adding Fields to the Record Format

Press [F] to begin adding fields to your record. Certain information (TYPE, LENGTH/DIGITS, DESCRIPTION, NUMBER OF DECIMALS, and VALIDATION/DERIVATION) is requested for FIELD 01.

Use the steps described below to define each record field. The information required for each field you add to a record is explained following the steps. You may wish to read the details for the information items before you complete the steps for adding a field.

Press [↑] and [↓] to move between the field information items to correct any errors. Use the space bar to erase anything to the right of the cursor if your correction is shorter than the original entry. If you change your mind about including a field in your record format, press [BREAK] to clear the entire field.

Note: If your database contains record data, adding a field affects the structure of your database file. Refer to "Changing the Record Format After Records Exist" for information on restructuring your data file. Added fields are not recognized by OS-9 Profile until you restructure the file.

1. Press the number for the field type. The cursor moves to the length/digits field.

2. Type a length or number of digits for the field. Press [ENTER] if the length is a single digit. The cursor moves to the description field. (Note that LENGTH is skipped for date type fields.

3. Type a description for this field, and press [ENTER].

4. Type the number of decimal places for a math or derived field. Press [ENTER] to default to 0.

5. Type a validation or derivation expression.

After you enter the information for field 01, move to the message at the bottom of the screen, (PRESS ENTER AFTER CHANGES). Press [ENTER]. The field is saved, and the screen shows ANOTHER (Y/N)? Press [Y] to add another field. A screen for the next field appears. Continue adding fields until the record format is complete.

Note that the order in which you add the fields to your record makes little difference. Later, you can arrange the fields in any order you want on the screen and on reports.

After all record fields are added, press [N] at the ANOTHER (Y/N)? prompt. The Define Record Format Menu appears again. Because you have added fields to the record, the 3 field update options (C, D, and E) now appear on the menu.

Type

The first piece of information required for a field is the field type. There are 6 types you can use for the field:

Press:	For this type:	Data accepted in field type:
0	Unused	None—0 deletes the field.
1	Alphanumeric	Any printable characters—letters, numbers, punctuation, symbols, and spaces.
2	Date	Numbers (0-9) in the date format, MMDDYYYY—Profile automatically validates the month (1-12) and day (1-31). (For sorting purposes, dates are stored as YYYYMMDD.)
3	Math	Numbers (0-9, . and + or −). Can be used in addition, subtraction, multiplication, and division, as well as in report totals.
4	Derived	None—calculated by OS-9 Profile. Refer to "Using Derived Fields" for more information.
5		None—5 is reserved for internal use by Profile.

The field types are also listed at the bottom of the screen.

Length/Digits

The next item required is the field length (the number of digits for math and derived fields). A record can contain a maximum of 35 fields. Fields can contain up to 64 characters. The maximum capacity for any one record is 512 characters.

Therefore, you can define only 8 fields in the record format if you use the maximum field length of 64. Also, fields can be no longer than 7 characters (approximately) if you use the maximum number of fields (35).

Be sure to allow sufficient room for the data, including any calculated results, without wasting valuable record space. If

you attempt to exceed the 512 character limit, the screen shows: ALL FIELDS HAVE BEEN DEFINED.

The maximum field lengths for the data types are: Alphanumeric, 64 characters; Date, 8 characters; Math, 12 characters (including floating decimal, up to 9 significant digits, decimal places, and + or −); Derived, no limit (long enough to show the largest calculated result—include significant digits, decimal, decimal places, and + or −).

Description

The description is a name you use to refer to the field. This is not necessarily the same name you want to appear on the screen. Use a maximum of 12 characters for the description.

Number of Decimal Places

This refers to the number of digits you want to appear to the right of the decimal point. This information is required for math and derived field types only.

Derivation

This refers to the expression that calculates a derived field. It is required for derived field types only. Use derived fields to perform small-scale calculations. Derived fields can be the result of addition (+), subtraction (−), multiplication (*), and/or division (/) between math type or other derived fields. Derived fields are calculated by Profile at print time (not stored).

In an expression for a derived field, the first entry must be a 2-digit field number, preceded by an exclamation mark. This field is the basis for the calculations. Following it is an arithmetic operator, then another field number or a literal value, and so forth.

Calculations are performed from left to right, in the following order:

- parenthetical operations
- negation
- multiplication and division
- addition and subtraction

You can "nest" parentheses (place parentheses within parentheses). There is no limit on the number of levels you can nest. Operations within the innermost set of parentheses are performed first.

Also, when using a minus sign to indicate a negative number (negation), do not leave a space between the sign and the number. If the hyphen is followed by a period (.) or a number, OS-9 Profile assumes it to be the **sign** of the number. Otherwise, OS-9 Profile assumes it to be the subtraction **operator**.

You can insert a space between numbers and operators for clarity on the screen if you wish, although spaces are not necessary except when distinguishing a negative number from a subtraction operator.

Following are some examples of expressions you can use to calculate a derived field:

!Ø1+!Ø2*!Ø3	multiplies field Ø2 by field Ø3, then adds the result to field Ø1
(!Ø1+!Ø2)*5	adds fields Ø1 and Ø2, then multiplies the result by 5
!Ø1+!Ø2*5	multiplies field Ø2 by 5, then adds field Ø1 to the result

Note: You cannot calculate a derived field using its own field number. To calculate field 17, for example, **!15+!17** is not a valid expression.

Using Conditional Derived Fields

Derived fields can be calculated using a combination of **both** numeric and logical operations. These types of expressions are used in "if-then" situations and require careful study as

well as a thorough understanding of OS-9 Profile expressions.

For example, consider a CURRENT BALANCE field, (field 27). If field 27 contains an outstanding balance, you want field 28 to show an INTEREST charge of 1.5% of the balance. If the CURRENT BALANCE is 0 or negative, you do not want to apply an interest charge. For this calculation, enter the following expression at the DERIVATION prompt when adding field 28 to your record format:

!27>0 AND !27*.015.

In the above example, suppose field 27 contains 100.00. The result in field 28 is 1.50. If field 27 reflects an overpayment, -100.00, no interest is calculated; field 28 retains a 0 balance.

In a conditional derived field, OS-9 Profile first checks the logical expression. If the condition is met, a value of 1 is assigned to the expression. If the condition is not met, a value of 0 is assigned to the expression. The AND connector is translated to * (multiply), and the OR connector is translated to + (add). Thus, our examples are solved in this manner:

!27 > 0 AND !27 * .015

In the first example, field 27 = 100.00; therefore, the logical expression, !27>0 is set equal to 1:

1 * 100.00 * .015 = 1.50

In the second example, field 27 = -100.00; therefore, the logical expression, !27>0 is set equal to 0:

0 * -100.00 * .015 = 0

Validation

This is where you enter a rational expression if you want OS-9 Profile to check for a valid entry in this field. When entering actual record data in this field, your entry is checked against the validation expression. You must make a valid entry in the field before you can go to the next field.

You can enter a validation expression for all field types except derived fields. Use relational operators within an expression to set boundaries for field input. The first character of a validation expression must be a relational operator, as follows:

=	equal to
<	less than
<=	less than or equal to
>	greater than
>=	greater than or equal to
<>	not equal to

A validation expression can include 1 or 2 validations. If you include 2 validations, separate them with **AND** or **OR**. When you use **AND**, both conditions must be met. When you use **OR**, at least 1 of the conditions must be met. A single-validation expression can include a maximum of 27 characters and the operator. Each validation of a double-validation expression can include a maximum of 13 characters and an operator (plus AND/OR).

You can perform validation on any field type. Note, though, that alphanumeric fields compare only as many characters as are included in the validation string. Additional characters are ignored. Also note that date field validations must be in the format YYYYMMDD (date field storage format).

For example:

>00000 AND <=99999	checks for valid input into an alphanumeric zip code field
<>0	forces non-zero input
>50 OR <50 or **<>50**	forces input not equal to 50
>A AND <N	allows only input with the first character ranging from B to M
>=A AND <=N	allows only input with the first character ranging from A to N

Changing the Record Format After Records Exist

Although you can view or change the record format at any time, we recommend that you make any changes to the format (options D, E, and F) **before** you enter actual data in records. Once you store data in your records, certain changes to the record format require you to restructure the data file.

You must restructure the file if any of these changes are made to the record format after data records are entered:

- any field other than a derived field is added or deleted
- a field's type is changed
- the length of any field other than a derived field is changed
- the number of decimal places in a math field is changed

Be sure to make a backup of your diskettes **before** you make any of these changes. After making your changes, you see the following message when you exit the Define Record Format Menu:

```
YOUR NEW RECORD FORMAT HAS BEEN
STORED IN A FILE NAMED
"DCTL.TEMP".

TO MODIFY THE DATABASE RECORDS,
GO TO THE MANAGEMENT UTILITIES
OPTION FROM THE MAIN MENU.
```

OS-9 Profile does not acknowledge changes to the record format until you restructure the data file. Follow the instructions in "Restructuring Files" in Chapter 8. After you restructure your data file, update any access methods, display formats, and report formats that are affected by the changes to the record format.

For example, if you delete a field, you must also delete it from display and report formats. Because you cannot sort by a deleted field, you must also delete it from access method formats. If you change a field's length, any data already entered for that field is adjusted to fit the new field length. (Blanks are added if the field is lengthened. Existing data is truncated if the field is shortened.) Modify any display or report formats that contain the field.

Some types of record format changes do not affect the way your data is stored in records on diskette. You can make the following types of changes without restructuring your data file:

- add, delete, or change a derived field
- change a validation expression for any field
- change a field's description

Chapter 3

Defining Display Formats Main Menu Option D

After defining a record format for your file, your next step is to design a display format. The display format determines how your record appears on the screen. You can choose any or all of the fields in your record format for each display format. As many as 9 display formats are allowed for each database file.

Each display format can contain as many as 3 screens. Each individual screen consists of 12 lines, with 32 character spaces on each line.

You can define various formats to display different sets of fields or to arrange the same fields in a different way. You can also design screens for entering data in records or for reviewing and displaying data only.

Note: You must create at least 1 screen for a file before you can enter records into that file.

Use the Define Display Formats option to design a display format. At the Main Menu, press [D]. The screen shows:

```
DISPLAY FORMAT DEFINITION

  FREE:  #####  filename
<0> NONE YET DEFINED
 1
 2
 3
 4
 5
 6
 7
 8
 9

ENTER SELECTION [  ]
(PRESS BREAK TO EXIT)
```

is the amount of memory available for sorting records, and **filename** represents the name of the database file for which you are designing the display format.

Press a number key, 1-9, to designate an ID number for the display format you are creating. The screen clears, and a message appears at the top of the screen:

```
FORMAT <#> [                                    ]
```

In this message, # is the number you chose to identify the display format. Type a title for the format you are creating, using a maximum of 16 characters, and press [ENTER].

Remember the following rules as you are creating a display format:

- If you press ["] by mistake while you are designing the format, press [BREAK] to cancel the field.
- You cannot overlap fields. If you place a field on a line with another field and there is not enough space for both, the other field is deleted to make room for the latest one. If you place a field at the bottom right of the screen and there is not enough room, it is not accepted. The program indicates that there is NOT ENOUGH SCREEN AREA at the bottom of the screen. Press [↓] to continue on the next screen. ([↑] at the top of a screen moves to the previous screen.)
- Date fields require 10 character spaces on the screen (to include slashes). Each bracket counts as a blank space.
- If you are designing a screen and decide to make a major revision, you can clear the entire screen by pressing [SHIFT] [←].

There are 2 approaches to designing a display format. You can type the label and add the data entry area for each field before you add the next field, or you can create a basic screen layout by typing all the field labels before you add any of the data entry areas. The first approach is best when you are designing a display format that contains only a few fields.

If your display format is lengthy, however, creating a basic screen layout is usually easier. Refer to "Creating a Basic Screen Layout" for more details.

If you are using the first approach to design your display format, follow these steps to place your record fields on the screen:

1. Use the arrow keys to position the cursor where you want to place a field.

2. Type a label or heading for this field.

   Field headings can be any information that identifies the field for you. We recommend that you leave 2 blank spaces after a field heading to separate it from the data entry area.

3. Position the cursor where you want the data entry area for the field to appear. Press ["]. A message appears at the top of the Display Format Definition screen:

   ```
   WHICH FIELD NUMBER?
   ```

4. Refer to the printout of your record format for the numbers of the record fields. Type the field number, and press [ENTER].

   After you enter the field number, the screen shows a bracketed area that is equivalent to the length of the field.

Press [↓] at the bottom of the screen if you want to continue this display format on the next screen. (Press [↓] at the bottom of the second screen to use a third screen.) After the entire display format is complete, press [ENTER] to store the new format or any changes made to an existing format. Pressing [BREAK] exits the format without storing any changes.

Editing the Display Format

After a field is placed on a screen, you can see its field number and description by positioning the cursor over the beginning bracket of a field area. The field number and description appear at the top of the screen. You cannot place the cursor in the bracketed area; it automatically skips to the first position following the bracketed area.

To delete (or move) a field, position the cursor over the beginning bracket for the field, and press ["]. Press [BREAK] when the field number is requested. The brackets and boxes disappear, allowing you to use the area for another field.

Creating a Basic Screen Layout

You may find it easier to design a basic screen layout for your display format by adding only the field labels at first. Then, after the screen is laid out properly, place the data entry areas of the fields to the right of their headings.

As you are adding the labels to the basic screen layout, be sure to leave sufficient room for their respective fields. You can also add dollar signs for math or derived fields and other "edit characters" to the screen for your fields. When you finish the basic screen layout, it might look something like this:

```
ACCT #
NAME
ADDRESS
CITY
ST          ZIP

PHONE

NUM SOLD
PRICE/UNIT $
TOTAL      $
DELIVERY DATE
```

At this point, you have designed the way you want the screen to look, but you have not specified to OS-9 Profile the actual fields you want to display.

Now, position the cursor where you want the data entry area for the first field to appear. Press ["]. Type the appropriate field number, and press [ENTER]. A bracketed field area equivalent to the length of the field appears. Repeat this process to position each field. After you add the data entry areas for the fields, your screen looks something like this:

```
ACCT # [..]
NAME  [......................]
ADDRESS  [..................]
CITY  [..............]
ST  [.]   ZIP  [........]

PHONE  [.........]

NUM SOLD  [..]
PRICE/UNIT $    [.....]
TOTAL        $ [.......]
DELIVERY DATE  [........]
```

If you wish, continue the display format on 1 or 2 successive screens by pressing [↓] at the bottom of the screen. When the display format is complete, press [ENTER] to save it.

Modifying an Existing Display Format

Also use the Define Display Formats option to modify a display format.

1. Press [D] at the Main Menu.

2. When the format list appears, press the number for the display format you want to modify.

3. The first screen of the display format appears. Use the arrow keys to move to the information you want to change, and type the change. You can use the space bar to space over information you want to delete.

Repeat Step 3 until the format is correct. Then, press [ENTER] to store your changes. When the Display Format Definition screen appears again, press [BREAK] to return to the Main Menu.

Selecting a Display Format

If you define more than 1 display format for a file, you need to select the format in which you want to enter and display data in your records. (If you define only 1 format, that format is the default selection.) To select a different display format from the Main Menu, follow these steps:

1. At the Main Menu, press [↓] to move to the selection box at the right of the Define Display Formats option. The selection box indicates the current display format.

2. Press the number for the display format you wish to select. The number in the selection box changes to reflect the change.

   The selected format is used the next time you view or update a record.

Chapter 4

Defining Report Formats Main Menu Option E

Use the Define Report Formats option on the Main Menu to define 1 or more report formats. You can include any or all of your database record fields in a report. As many as 9 report formats are allowed for each database file. Not only can you define reports with this option, but you can also design mailing labels.

Note that you can define a report format only if you have first defined the record format. If you plan to use an access method to sort the report, the access method must also be defined before you define the report format.

Defining a report format is a two-step process. First, you define the print settings for the report. Second, you create your report layout.

Defining the Print Settings

The print settings determine how the report will print: how it sorts, the line width, the number of lines per page, the page margins, how many replications per line (for labels), and how many report lines are used for headings, detail (your data), subtotals, and totals. The last print setting is for any print codes your printer requires.

Press [E] at the Main Menu for the Define Report Formats option. The screen shows:

```
REPORT FORMAT DEFINITION

   FREE:  #####  filename
<0>  NONE YET DEFINED
 1
 2
 3
 4
 5
 6
 7
 8
 9

ENTER SELECTION [_ ]
(PRESS BREAK TO EXIT)
```

is the amount of memory available for sorting records, and *filename* represents the name of the database file for which you are defining the report format.

Press a number key, 1-9, to designate an ID number for the report format you are creating. The screen shows:

```
REPORT <#> [                    ]
ACCESS METHOD              [0]
LINE WIDTH                 [132]
LINES PER PAGE             [66]
MARGINS: LEFT              [00]
         TOP               [00]
         BOTTOM            [00]

NUMBER OF LINES OF:
         REPLICATIONS      [1]
         HEADINGS          [1]
         DETAIL            [1]
         SUB-TOTALS        [0]
         TOTALS            [0]

PRINT CODES  [000] [000] [000]
```

refers to the ID number you chose for this format. The print settings are explained below. Press [↓] to use a default setting. When you finish entering your print settings, press [ENTER] to store the settings on diskette and go to the report layout screen. (Pressing [BREAK] exits the format without storing your settings.)

Use these steps to enter the print settings for your report format:

1. The first step is to enter a name for the report. The name appears on the Report Definition Menu after the report is defined. It is for your information only.

   Type the report name, and press [ENTER].

2. Enter the access method by which you wish to sort this report. An access method must be defined for the number you enter. Access method 0 is pre-defined by OS-9 Profile and prints the report in record number order.

   Press the number for the access method you want to use for this report.

3. Specify the maximum number of data characters to print on each line of the report. Note that your line width setting does **not** include a left margin. The maximum setting is 132.

   The line width plus left margin cannot exceed the width of your paper or the maximum number of characters your printer can print on a line. If you are using letter-size paper (8½" wide), the line width can be up to 80 characters (132 characters if your printer uses a condensed print mode).

   The right margin is the total paper or printer column width less the left margin and line width. For example, if your printer prints 80 columns and you want left and right margins of 10 characters each, set LINE WIDTH to 60 and LEFT MARGIN to 10. This results in a forced right margin of 10.

   You can use line width to limit the amount of information printed on a report. For example, by specifying a line width of 50, only the first 50 characters of each

line are sent to the printer, no matter how many characters you use in your actual report format. Thus, you can alter the format to print a full or abbreviated report.

Type the line width. (Press [ENTER] if the number is less than 3 digits.) Press [↓] to use the default setting.

4. Specify the length of your paper, in lines. This is the number of lines that can print on your paper. The lines per page setting includes any amounts you enter for a top and bottom margin. If you are using a standard printer and paper (11" long), your lines per page setting is 66 (6 lines per inch). The default setting is 66; the maximum is 99.

   Type the number of lines per page. (Press [ENTER] if the number is less than 2 digits.) Press [↓] to use the default setting.

5. Specify the number of blank character spaces you want to appear in the left margin of the report. Your left margin plus line width settings should not exceed 132 or the number of characters your printer can print on a line. The default setting is 0.

   Type the number for the left margin. (Press [ENTER] if the number is less than 2 digits.) Press [↓] to use the default setting.

   This prompt is skipped if the line width is 132.

6. Specify the number of blank lines you want to appear at the top of each page of your report. Note that this number is included in the lines per page setting. The number of actual report lines that print on each page equals the lines per page less the top and bottom margins. The default setting is 0.

   Type the number for the top margin. (Press [ENTER] if the number is less than 2 digits.) Press [↓] to use the default setting.

7. Specify the number of blank lines you want to appear at the bottom of each page of your report. Note that this number is included in the lines per page setting. The number of actual report lines that print on each

page equals the lines per page less the top and bottom margins. The default setting is 0.

Type the number for the bottom margin. (Press ENTER if the number is less than 2 digits.) Press ↓ to use the default setting.

8. Specify how many times you want the report data repeated across the page. Use this setting to print mailing labels when your sheet of labels contains 2 or more labels on each line. The default setting is 1, for a single-column report (or labels). The minimum setting is 1; the maximum setting is 8.

   To use replication, set the report's LINE WIDTH to accommodate 1 occurrence of record data. Allow enough space in you line width to leave blank spaces between the labels. The total of your line width times the number of replications plus the left margin cannot exceed the capabilities of your printer. For example, a line length of 25, combined with 3 replications, plus a left margin setting of 5, equals 80 print positions. Note that totals and subtotals are not available when the replication value is greater than 1.

   Type the number of replications. Press ↓ to use the default setting.

9. Specify the number of heading lines you want to appear at the top of each report page. You enter the actual heading text when you are creating the report layout. You can include 0-3 heading lines. The default setting is 1.

   For example, entering 3 at HEADINGS gives you enough room to type a report title, a line for the report date, and a line of column headings.

   Type the number of heading lines. Press ↓ to use the default setting.

10. Specify the number of lines necessary for printing one record's data on the report. You can specify a minimum of 1 and a maximum of 5 detail lines. The default setting is 1.

For instance, you can print a name, address, phone number, social security number, and birthdate for each record in your file. If all this data will not fit on 1 printed line of the report, you can specify 2 as the number of detail lines. To print each field on a separate line, you can specify 5 detail lines.

Type the number of detail lines. Press [↓] to use the default setting.

11. Specify the number of subtotal breaks you want in this report. Subtotal breaks are intermittent totaling of groups of data on the report. The default setting is Ø. The maximum is 3. (The number of subtotal breaks cannot exceed the number of sequence fields specified in the access format.)

    To use subtotal breaks, the sequence fields in the access method you choose for this report must specify 1 or more groups of records for which you want subtotals. If you choose 1 subtotal break, only the primary sequence field is used. If you choose 2, the first 2 sequence fields are used. If you choose 3, subtotal breaks appear for all 3 sequence fields.

    The fields that are subtotaled are not necessarily the fields on which the subtotal breaks are made. For example, suppose the access method for this report sorts customer records on 3 levels—by customer name, salesman, and region, in that order. In this case, all the fields that determine the subtotal breaks are alphanumeric. They cannot be subtotaled. The fields that you subtotal must be math or derived type. The subtotal amounts are, for example the total sales for each customer, the total sales and the total commissions for each salesmen, and the total sales for each region.

    Choose 1 to subtotal math or derived fields for each customer. Choose 2 to subtotal fields for each customer and for each salesman. Choose 3 to include subtotals for customers, salesmen, and regions. You also choose 3 if you want subtotals only for the second and third levels. Then, when creating the report layout, do not

enter a field number on the first subtotal line. The line is left blank on the report.

Type the number of subtotal breaks. Press [↓] to use the default setting.

Note: Profile skips the SUB-TOTAL and TOTAL prompts if your report has more than 1 replication.

12. Specify whether or not you want a grand total line to appear at the end of your report.

    Press [1] to include a grand total line on your report. Press [0] if you do not want a grand total line.

13. Specify any printer codes required for your report. Printer codes regulate the printer for condensed and non-condensed reports. If your printer has the capability and you want to use condensed print, enter the values needed to print your report. Refer to the owner's manual for your printer for more information. Skip this prompt if you do not want to change your printer setting.

    Enter the printer codes, or press [ENTER] 3 times to skip the print codes prompt.

After you enter the report settings, the report layout screen appears.

Creating the Report Layout

After you enter the print settings, a blank report layout screen appears. Use this screen to lay out the report the way you want it to print. The report layout consists of 3 areas, the heading area, the detail area, and the subtotal and total area. Each area begins with a ruler line that marks off the screen's character positions.

Use the arrow keys to move the cursor around the screen. When you move out of one section, the cursor moves to the upper-left corner of the next section. You can include as

many characters in a line as the entire width of your report, less the left margin (LINE WIDTH - LEFT MARGIN). Only 32 character positions appear on the screen at one time. As you type, the screen scrolls the remaining portion of the layout into view.

The 3 report layout areas are explained in this section. Follow the instructions given to add headings, detail lines, subtotals, and totals. [ENTER] exits the report definition mode and saves the results to diskette. Do not press [ENTER] until the entire layout is complete. [BREAK] exits the report definition mode without saving the results. [SHIFT] [←] erases the entire layout screen.

Entering Report Headings

If you specified a number of heading lines at the print settings screen, the first ruler line indicates your heading area. From 1 to 3 blank lines appear beneath the ruler, according to the number of heading lines you specified on the print settings screen.

Type any text you wish to appear as headings. If you specified 3 heading lines, for example, you can type a company name on the first line, a report title on the second, and column headings for your record fields on the third line. (Record fields are not allowed in the heading.)

In addition to entering specific heading text, you can use the following OS-9 Profile special functions in your heading lines:

Code	Function
96	prints the system time
97	prints the system date
98	prints the report page number
99	line feeds (prints a blank line)

To use a special function, position the cursor for placement of the information, and press ["]. The screen shows:

```
WHICH FIELD NUMBER?
```

Type the appropriate code number, and press [ENTER]. A bracketed area appears for the special function. If you press ["] by mistake, press [BREAK] to cancel the field.

If you place the cursor on the left bracket of a special function area, the top line of the screen indicates its name and description. You cannot move the cursor within a bracketed area.

Code 99 is very useful for extra line spacing. Suppose you fill all 3 heading lines, but want a blank line before the column headings and another before the detail lines. Press ["], then type **99**, and press [ENTER] at the end of the second heading line to insert a blank line. Then, insert a blank line between the column headings and report data, by pressing ["], typing **99**, and pressing [ENTER] at the end of the last heading line.

When you finish the heading information, press [↓] until the cursor moves to the detail area of the report layout screen.

Entering the Report Detail

If you specified a number of heading lines at the print settings screen, the second ruler line indicates your detail area. (If you did not specify any heading lines on the print settings screen, the first ruler line begins the detail area.) The detail area specifies what record data appears on this report. From 1 to 5 blank lines appear beneath the ruler, according to the number of detail lines you specified on the print settings screen.

Detail lines can consist of text and record fields. Simply type text to add it to a detail line. To add a record field, position the cursor, and press ["]. The top line on the screen shows:

```
WHICH FIELD NUMBER?
```

Type the number of the field you want to add, and press [ENTER]. A bracketed field area appears for the record field. The cursor returns to the detail line. Continue adding record fields, using the arrow keys to move the cursor as needed.

In addition to text and record fields, you can use the following OS-9 Profile special functions in your detail lines:

Code	Function
0	prints the record number
99	line feeds (prints a blank line)

To use a special function, position the cursor for placement of the information, and press [”]. The screen shows:

```
WHICH FIELD NUMBER?
```

Type the appropriate code number, and press [ENTER]. A bracketed area appears for the special function.

If you place the cursor on the left bracket of a record field or special function area, the top line of the screen indicates its name and description. You cannot move the cursor within a bracketed area.

When you finish the detail information, press [↓] until the cursor moves to the next (totals) area of the report layout screen.

Entering Subtotal and Total Fields

If you specified subtotal breaks and/or a grand total at the print settings screen, the last area on the screen is for these totals. The subtotal and total area includes as many blank lines as you specified for subtotal breaks plus a grand total line if you specified one. For example, if you specified 3 subtotal breaks and a grand total on the print settings screen, there are 4 lines in the this area. If you did not specify subtotals or a grand total, this area does not appear.

Enter text and up to 3 math or derived fields for which you want subtotals on each of the first 1-3 lines (depending on the number of subtotal breaks you specified). The first subtotal line relates to the primary sequence field break, the second subtotal line relates to the secondary sequence field break, and the third subtotal line relates to the tertiary sequence field break. Enter up to 3 fields for which you want grand totals on the last line (if you specified a grand total line).

Simply type text to add it to a subtotal or total line. To add a record field, position the cursor, and press ["]. The top line on the screen shows:

```
WHICH FIELD NUMBER?
```

Type the appropriate field number, and press [ENTER]. A bracketed field area appears for the record field. The cursor returns to the subtotal or total line. Continue adding record fields, using the arrow keys to move the cursor as needed.

In addition to text and record fields, you can use the following OS-9 Profile special functions in your subtotal and total lines:

Code	Function
0	prints the total record count (since the last subtotal break—on the grand total line, prints the total of all records)
99	line feeds (prints a blank line)

To use a special function, position the cursor for placement of the information, and press ["]. The screen shows:

```
WHICH FIELD NUMBER?
```

Type the appropriate code number, and press [ENTER]. A bracketed area appears for the special function.

The fields you subtotal and total are not necessarily the same as the access sequence fields that determine the breaks. You can subtotal or total any math or derived fields.

After you add the subtotals and total information, press [ENTER] to save the report format (print settings and layout) to diskette. The Report Format Definition screen appears. Press [BREAK] to return to the Main Menu.

As an example of a report layout, suppose you have a membership list database. Your access method contains 2 sequence fields, the **region** and **name** fields. Your records also use math fields for the amount of **dues** that are owed and for the number of **children** in each member's family. The report format might look like this:

```
***+5****10***15***20***25***30***35***40***45***50***55***60****
                        Membership List

Region  Member Name      Address          City          St  Zip -
****5****10***15***20***25***30***35***40***45***50***55***60***6
[....]  [.............]  [.............]  [...........] []  [...]
****5****10***15***20***25***30***35***40***45***50***55***60****
Regional Dues $  [.....] - -
              Children []       Dues $  [.....] -
         Total Children []               Total Dues  $  [.....]
```

The first subtotal line of the report layout includes only the **dues** field. The second subtotal line includes both the **dues** field and the **children** field. The total line also includes both fields. Also, notice the placement of the special function code 99 (for line feeds) in the report layout, denoted by hyphens in this example.

When the report prints, subtotals of the dues owed are given for each region. Subtotals of the dues owed and the number of children are given for each member. Finally, grand totals of the dues owed and the number are given. Our example report looks like this when it is printed:

Membership List

Region	Member Name	Address	City	St	Zip
DLS	Gordon, Jean	747 Bryan Place	Dallas	TX	75202
	Children 0	Dues $ 10.00			
DLS	Gordon, Sam	747 Bryan Place	Dallas	TX	75202
	Children 0	Dues $ 10.00			
DLS	Green, Cathy	484 Bluebonnet	Fort Worth	TX	76102
	Children 2	Dues $ 15.00			
DLS	Sampson, Fred	6565 Western	Dallas	TX	75211
	Children 1	Dues $ 15.00			
Regional Dues $ 50.00					
SAT	Franklin, Sam	4323 Part Lane	Helotes	TX	73734
	Children 4	Dues $ 15.00			
SAT	James, Vera	645 Lampas #654	Austin	TX	73815
	Children 0	Dues $ 10.00			
SAT	Johnson, Bill	512 Rio Azul	San Antonio	TX	73701
	Children 3	Dues $ 15.00			
Regional Dues $ 40.00					
Total Children 10		Total Dues $ 90.00			

Editing the Report Layout

After a field is placed on the report layout, you can see its field number and description by positioning the cursor over the beginning bracket of a field area. The field number and description appear at the top of the screen. You cannot place the cursor in the bracketed area; it automatically skips to the first position following the bracketed area.

To delete (or move) a field, position the cursor over the beginning bracket for the field, and press [”]. Press [BREAK] when the field number is requested. The brackets and boxes disappear, allowing you to use the area for another field.

Modifying an Existing Report Format

Also use the Define Report Format option to modify a report settings or a report layout.

1. Press [E] at the Main Menu.
2. When the Report Format Definition screen appears, press the number for the report format you want to modify.
3. The print settings screen appears. Use the arrow keys to move to the information you want to change, and type the change. Continue making changes until the settings are correct.
4. When all changes to the settings are complete, press [ENTER] until the report layout screen appears.
5. Use the arrow keys to move to the information you want to change, and type the change. Press the space bar to space over information you want to erase.

Continue making changes until the layout is correct. After all changes are made, press [ENTER] to store the changes and return to the Report Format Definition screen. Press [BREAK] to return to the Main Menu.

Selecting a Report Format

If you define several report formats for a file, you can select the format in which you want to print a report. To select a different report format from the Main Menu, follow these steps:

1. At the Main Menu, press [↑] 2 times to move to the selection box at the right of the Define Report Formats option. The selection box indicates the current report format.

2. Press the number for the report format you wish to select. The number in the selection box changes to reflect the change.

   The selected format is used the next time you print a report.

Chapter 5

Defining Access Methods Main Menu Option F

Access methods determine how the records you add to your database are sorted. Without defined access methods, the only way to search for records is by the record number. Because this is not adequate for most purposes, access methods provide for alternate sequences for searching, sorting, and displaying your records. The access methods you define are saved to diskette.

Use the Define Access Methods option to define as many as 9 access methods, with as many as 3 different levels of sorting per method. You can sort by any fields in your database, except derived fields.

You can, for example, sort your records first by last name (primary sequence), then by first name (secondary sequence), and finally, by city (tertiary sequence). In this case, all records are sorted by last name. Records with the same last name are sorted also by first name. Additionally, records in which the last names match and the first names also match are sorted once again by city.

Press [F] at the Main Menu for the Define Access Methods option. The screen shows:

```
ACCESS METHOD DEFINITION

  FREE:  ####   filename
<0>  BY RECORD NUMBER
 1
 2
 3
 4
 5
 6
 7
 8
 9

ENTER SELECTION [ ]
(PRESS BREAK TO EXIT)
```

is the amount of memory available for sorting records, and *filename* represents the name of the database file for which you are defining the access method.

Note that access method <0> is already defined and has a name— BY RECORD NUMBER. If you press [0], the screen shows that access method 0 has a fixed meaning and cannot be changed. The screen also indicates the number of records and reusable (deleted) records in your file. Access method 0 always accesses your file by record numbers. Press any key to return to the Access Method Definition Menu.

To define an access method:

1. Press a number key, 1-9, to designate an ID number for the access method you are defining. The screen shows:

```
ACCESS METHOD <#>

CONTAINS 00000 RECORDS
LAST UPDATE 00/00/00

NAME: [                    ]

SEQUENCE FIELDS:
[00] [00] [00]
```

   # is the number you chose to identify the access method. The number of records that exist in this database file (0

for a new file) and the last time the access method was updated also appear.

2. The cursor is at NAME. Type a description for the access method you are defining, using 16 or fewer characters.

   For example, if you want to display records in alphabetical order by name, type **NAME** as the description.

3. The cursor moves to the first of the SEQUENCE FIELDS.

   The SEQUENCE FIELDS are the 3 fields by which your records are sorted. The first field is the primary sequence key. OS-9 Profile uses the record number and primary sequence field to create the keyfile and save the access method to diskette. This lets you search for records that match the primary sequence field when viewing or updating records. You must enter a field number for the primary sequence. The other 2 sequence fields are optional.

   Type the sequence fields you want to use in the order in which you want them to sort. Use the arrow keys to move the cursor between the fields. Press [ENTER] to move to the next field if you use a single-digit field number.

   Using our example of sorting by name, you could sort by both last name and first name. In which case, you would enter the number of the **LAST NAME** field as the primary sort sequence key and the number of the **FIRST NAME** field as the secondary sort sequence key.

After you answer the SEQUENCE FIELDS prompts, the access method keyfile is defined. If your database file contains records, the sorting process begins. (If you do not wish to sort your records at this time, press [BREAK] before you answer the last SEQUENCE FIELD prompt.) When the sort is complete, press any key to return to the Access Method Definition Menu. Define another access method, or press [BREAK] to return to the Main Menu.

Note: Access keys are not transferred to restructured files. You must redefine your access methods after copying or restructuring a file.

Modifying an Existing Access Method

Also use the Define Access Methods option to modify an existing access method.

1. Press [F] at the Main Menu.
2. When the Access Method Definition Menu appears, press the number for the access method you want to modify.
3. The access method screen appears. Use the arrow keys to move to the information you want to change, and type the change.

Repeat Step 3 until the access method is correct. Then, press [ENTER] to store your changes. After the records are resorted, press any key to return to the Access Method Definition Menu. Press [BREAK] to return to the Main Menu.

Selecting an Access Method

If you define several access methods for a file, you can select the access method by which your records are sorted. To select a different access method from the Main Menu, follow these steps:

1. At the Main Menu, press [↑] to move to the selection box at the right of the Define Access Methods option. The selection box indicates the current access method.
2. Press the number for the access method you wish to select. The number in the selection box changes to reflect the change.

   The selected format is used the next time you selectively view or update records or print a report.

PART 3
USING YOUR DATABASE

Chapter 6

Viewing and Updating Records Main Menu Option A

The most important aspect of your file is the data you store in it. After your database is completely set up—record, display, and report formats—and access methods are defined, you are ready to add data to your file and begin tracking and manipulating it. Use the View or Update Records option on the Main Menu to add, view, update, and delete records; restore deleted records; and recover deleted record space.

Press [A] at the Main Menu. The View/Update Sub-Menu appears. The View/Update Sub-Menu gives you control of your database.

```
      OS-9 PROFILE     vv.ee.rr
ACCESS METHOD:    xxxxxxxxxxxxxxx
VIEW/UPDATE SUB-MENU

A: VIEW ENTIRE DATABASE
B: VIEW SELECTED RECORDS
C: DELETE RECORDS
D: RESTORE DELETED RECORDS
E: COMPRESS PROFILE FILE
F: UPDATE RECORDS
G: ADD NEW RECORDS

ENTER SELECTION [ ]
(PRESS BREAK TO EXIT)
```

The name you assigned to the current access method appears on the second line. If you have not yet added data records to your file, only 1 option (G) appears on the menu. You must use option G to add data records before you use any of the other options. After your database contains records, all options appear on the menu. (Options D and E appear only when the database contains deleted records.)

Viewing the Entire Database

Use the View Entire Database option to view all the records in your file.

Press [A] at the View/Update Sub-Menu. Your data records are displayed, one at a time, in the order determined by the current access method. After a record is displayed, the screen shows:

```
ANOTHER (Y/N) ?
```

Press [Y] to see the next record or [N] to return to the View/Update Sub-Menu. After the last record is displayed, OS-9 Profile returns to the View/Update Sub-Menu automatically.

Viewing Selected Records

Use the View Selected Records option to view one or more specific records. You can view your records according to the current access method or by record number.

1. At the View/Update Sub-Menu, press [B]. The screen shows:

   ```
   ENTER KEYWORD ?
   ```

   Go to Step 2 if you want to use access method order; go to Step 3 if you want to use record number order.

2. To view records in access method order, type the keyword (search string) for the record you want. Press [ENTER]. OS-9 Profile uses the primary sequence field of the current access method to find records that match the keyword that you enter. For example, if the primary sequence field for the current access method contains names, you can select a specific record by entering the first few characters of the name.

   OS-9 Profile uses only the first 10 characters of your keyword in its record search. If your keyword is less than 10 characters, only the number of characters in your keyword are compared.

The selected record appears on the screen.

3. To view records in record number order, press [ENTER] at the ENTER KEYWORD prompt. The screen shows:

```
ENTER RECORD NUMBER
```

Enter a specific record number. (Pressing [ENTER] instead of entering a record number returns you to the View/Update Sub-Menu.)

The selected record appears on the screen.

4. The screen shows:

```
ANOTHER (Y/N)?
```

Press [Y] to view another record. (Pressing [N] returns to the View/Update Sub-Menu.) Go to Step 5 for access method order; go to Step 6 for record number order.

5. If you are viewing records in access method order, the screen shows:

```
USE SAME KEYWORD (Y/N) ?
```

Press [Y] or [N]. Enter a new keyword if you choose N.

6. If you are viewing records by record number, the screen shows:

```
ENTER RECORD NUMBER ?
```

Enter another record number.

Press [BREAK] to return to the View/Update Sub-Menu.

Using Wildcard Characters

You can use wild card character replacements (?) in your keyword string to represent any single character. For example, **???SON** selects any record that has "SON" as its fourth through sixth characters (NELSON, WILSON, and so on). Typing **?** alone as your keyword gives you access to all of your records. Because only as many characters as are in your

keyword are compared, it is not necessary to end a keyword string with "?."

Note: OS-9 Profile stores dates in *YYYYMMDD* format. Therefore, you must enter search criteria in the *YYYYMMDD* format to find a particular date. (Do not include the date's slashes in the search criteria.)

Deleting Records

When a record becomes obsolete or inactive, you can delete it from your database. A deleted record does not appear when you use any of the View/Update options. Follow these steps to delete a record:

1. Press [C] at the View/Update Sub-Menu. The screen shows:

   ```
   ENTER KEYWORD ?
   ```

2. Use the same search parameters described in "Viewing Selected Records." Select the record you wish to delete by entering a keyword or ? for a general search. Press [ENTER] if you wish to use record number access.

   When the record appears, the screen shows:

   ```
   IS THIS THE ENTRY (Y/N)?
   ```

3. Press [Y] to delete the record or [N] to select another record.

4. After deleting the record, the screen shows:

   ```
   ANOTHER (Y/N)?
   ```

   Press [Y] to delete another record or [N] to return to the View/Update Sub-Menu.

After returning to the View/Update Sub-Menu, you can verify the deletion by viewing the record. The record appears blank. The deleted record remains stored on diskette until you compress the file using the Compress Profile File option. Until you compress the file, you cannot reuse the record number.

If you delete a record, then change your mind, you can restore the record using the Restore Deleted Records option at any time **before** you compress the file.

Restoring Deleted Records

If you accidentally delete a record or lose valuable data from a disk, use the Restore Deleted Records option. This option recovers a record deleted after the last time the Compress Profile File option was used. Records deleted before compressing the file cannot be recovered. (This option appears on the View/Update Sub-Menu only when there are deleted records in the file.)

1. Press [D] at the View/Update Sub-Menu. The screen shows:

   ```
   RESTORE WHICH RECORD NUMBER ?
   ```

2. Enter the number of the deleted record. The deleted record is displayed, and the screen shows:

   ```
   IS THIS THE ENTRY (Y/N)?
   ```

   Press [Y] to restore the displayed record. Press [N] to choose another record.

If you restore all deleted records, the View/Update Sub-Menu appears again automatically. Option D is excluded from the Sub-Menu. If you do not restore all deleted records, press [N] at the ANOTHER (Y/N) ? prompt to return to the View/Update Sub-Menu.

Compressing a Profile File

When you delete records, they actually remain on the diskette until you instruct OS-9 Profile to remove them. If you delete many records, valuable diskette space is wasted storing them. Use the Compress Profile File option to free the wasted space. Compressing the file removes all deleted records from diskette, rewrites the data file, and renumbers your records.

(This option is available only when there are deleted records on the diskette.)

Important Note

Compressing a file is irreversible. You cannot restore deleted records once you compress the file. **Make a backup of your database diskette before you use this option.**

To compress a data file:

1. Press [E] at the View/Update Sub-Menu. The screen shows:

   ```
   COMPRESS - ARE YOU SURE (Y/N)?
   ```

2. Press [Y] to continue or [N] to return to the View/Update Sub-Menu. When the compress process is complete, the View/Update Sub-Menu appears again.

Selections D and E are excluded from the menu since there are no deleted records on the diskette.

Press [BREAK] to return to the Main Menu.

Updating Records

Use the Update Records option to edit or revise data in your records.

1. Press [F] at the View/Update Sub-Menu. The screen shows:

   ```
   ENTER KEYWORD ?
   ```

2. Use the same search parameters as described in "Viewing Selected Records." Select the record you wish to update by entering a keyword or **?** for a general search. Press [ENTER] if you wish to use record number access.

   When the record appears, the screen shows:

   ```
   IS THIS THE ENTRY (Y/N)?
   ```

3. Press [Y] to update the record or [N] to select another record. If you answer [Y], OS-9 Profile goes into the edit mode.

4. Press [↓] to move to the data you wish to change, and type the change.

When you finish, press [ENTER] to store the changes. (Pressing [BREAK] cancels any changes made.) After storing your changes, you are asked ANOTHER (Y/N)? Press [Y] to select another record or [N] to return to the View/Update Sub-Menu.

Adding New Records

Use the Add New Records option on the View/Update Sub-Menu to enter actual data in records. Do not press [ENTER] until the entire record is complete.

1. Press [G] at the View/Update Sub-Menu. Record 1 (or the first available record) for the currently selected display format appears. The data entry areas of the fields are blank. The cursor appears in the data entry area of the first field.

2. Type the data for each field. The cursor moves to the next field. (Press [↓] to move to the next field if you do not use all the spaces in a field's data entry area.)

   Remember that you cannot enter data into derived fields. These fields receive their data from other fields.

If you make a mistake while typing in a field area, use [→] and [←] to move to the area needing correction. To move the cursor to a preceding field, press [↑]. If you have multiple screens, OS-9 Profile automatically goes to the next screen when you enter the data for the last field on a screen.

Date fields are automatically validated for a month from 1-12 and a day from 1-31. Math fields are automatically validated for numerals, a plus or minus sign, and a decimal point. If you used validation on a field, Profile checks your input. If the input is not valid, Profile erases it and returns to the beginning of the field. INPUT DOESN'T PASS VALIDATION appears at the bottom of the screen.

After you enter all your record data, you are prompted to press [ENTER] to save the record. Before you press [ENTER], check your entries for mistakes. Use the arrow keys if corrections are needed. If all information is correct, press [ENTER] to store the record. (Pressing [BREAK] cancels the record entry.) The screen shows:

```
ANOTHER (Y/N)?
```

Press [Y] to continue adding records or [N] to return to the View/Update Sub-Menu.

Note: You cannot use any option other than Add New Records until at least 1 record is entered and the file is sorted. Refer to "Sorting Your Records" in this chapter for more information.

Sorting Your Records

OS-9 Profile notifies you when your records should be resorted:

```
DATABASE HAS BEEN UPDATED/MODIFIED
SINCE THIS KEY WAS LAST SORTED.

DO YOU WISH TO RE-SORT THIS
ACCESS KEY FILE?
```

This message appears if your access method keyfile is out of date because of updates or modifications to your database. You "update" your database when you change field data in existing records. You "modify" your database when you add or delete records. Press [Y] to resort your file by the current access method. Press [N] to delay resorting.

If any modifications or updates you make affect the access order of your file, your records do not reflect those changes until you resort the file.

If you are using the automatic update option (Enable/Disable Update Option on the System Defaults Menu), your database is automatically resorted each time you exit the View/Update Records Sub-Menu.

For example, if you are adding several records to your database, you can wait to resort the file until after you finish the additions. (Press [N] each time you are asked if you want to resort the access key file.) Then, if you have the automatic update option enabled, OS-9 Profile automatically resorts the file when you exit the View/Update Records Sub-Menu.

Chapter 7

Printing Reports
Main Menu Option B

After you set up your database file and add records to it, you can print a report in one of your defined report formats. Print the report on paper, display it on the screen, or save it in a special diskette file for printing later. You can also send the report to another device.

Reports are printed in the current report format. Before you begin, select a report format from the Main Menu. To print a report, press [B] at the Main Menu. A sub-menu appears:

```
REPORT <#>  xxxxxxxxxxxxxxx

  OPTION  [  ]
    1. TO PRINTER (/P)
    2. TO SCREEN
    3. TO DISK
    4. TO OTHER DEVICE


    80 COLUMN PRINT CODES
     [000] [000] [000]


PRESS BREAK TO ABORT
```

The current report format is indicated at the top of the screen. Keep these hints in mind when selecting an output method:

- Ready your printer before you print a paper report.
- On the screen, if report lines do not fit on one line, they are continued on successive screen lines and can be difficult to read.
- Sending a report to disk stores the print lines on your diskette in a "spool" file. The spool file contains the

exact image of what would normally be sent to the printer. You assign a filename to your report of up to 29 characters.

When you are ready to print a report, follow these steps:

1. Press the number for the output device for this report.

2. Type a filename for the disk file in which you want to store this report. (This prompt appears only if you choose to print to disk, option 3.)

3. The cursor moves to the first print code. Change any print codes you defined for this report format, or press [↓] to skip this prompt.

   For example, if your printer is set to print in condensed mode, you can use this prompt to reset the printer to its non-condensed mode. This prompt is also handy when you use different types of printers.

4. The screen shows:

   SELECTION CRITERIA:

   Enter selection criteria to print only certain records in this report. Your criteria must be based on the current access method's primary sequence field. Press [↓] to skip this prompt.

   For example, if the primary sequence field sorts by last name, you can enter **=M** to print all records containing last names beginning with M.

If your records need to be resorted, a message appears on the screen. Press [Y] to resort the records. The report is printed, displayed on the screen, saved on a diskette, or sent to another device, according to your choice of output device. (If you are displaying the report on the screen, it appears 1 page at a time. Press any key to display the next page.) The Main Menu appears again after the report is complete.

PART 4
MAINTAINING YOUR FILES

Chapter 8

Using the Management Utilities Main Menu Option G

The Management Utilities are a set of programs that help you manage your database files. You can restructure your database file after making a change to your record definition and copy or archive a database. You can also save your database in a format compatible with the Dynacalc spreadsheet program, read a Dynacalc spreadsheet file into your database, rename a database, and delete a database. Many of these utilities require either a complete OS-9 operating system or 2 disk drives.

The Management Utilities are powerful tools that let you do virtually anything to your database files. Because of their often complex functions, we advise you to **always** make a backup of your database **before** you use any of these utilities. Most of the utilities are irreversible. Take care not to destroy your valuable files!

Press [G] at the Main Menu for the Management Utilities. The screen shows the Management Utilities Menu:

```
          OS-9 PROFILE  vv.ee.rr
      COPYRIGHT  1984 COMPUTERWARE

   MANAGEMENT UTILITIES MENU

   A : RESTRUCTURE A DATABASE
   B : COPY (ARCHIVE) A DATABASE
   C : CREATE A SPREADSHEET FILE
   D : READ A SPREADSHEET FILE
   E : RENAME THIS DATABASE
   F : DELETE ANY OTHER DATABASE
   G : RETURN TO MAIN MENU


   ENTER SELECTION [ ]
   (PRESS BREAK TO EXIT)
```

The Operating System options are discussed on the following pages. After you finish with the Utilities, press [G] (or [BREAK]) to return to the Main Menu.

Restructuring a Database

Use the Restructure a Database option if you make any relevent changes to your record definition after records already exist. You must restructure your database if you add or delete a record field (other than a derived field), change a field type, change the number of decimals in a math field, or change the length of a field.

Before you begin:

Make a backup of your database diskette, and store it in a safe place. The restructure process is irreversible.

1. Press [A] at the Management Utilities Menu. The screen shows:

```
WHAT IS THE DESTINATION
DIRECTORY - ENTER THE DESTINATION DATABASE
PATHLIST (/DX/NAME)
?
```

2. Enter a complete pathlist (drive and pathname) for the restructured file. The restructure process begins.

After the database file is restructured, the Management Utilities Menu appears again.

Because access keys are easy to redefine, they are **not** transferred to the newly created database. Before you use the new file, redefine your access methods. Also, if you have not already done so, update your report and display formats to reflect the changes to your database.

Copying or Archiving a Database

Use the Copy (Archive) a Database option to make a duplicate of your database. When you use this utility to archive a database, you can selectively transfer records to the new database and/or delete records from the original database.

This utility requires either a complete OS-9 operating system or 2 disk drives. If you are using 2 disk drives, format a blank diskette on which to archive the file.

Before you begin:

Make a backup of your database diskette, and store it in a safe place. The delete process used in archiving is irreversible.

1. Press [8] at the Management Utilities Menu. (Place the formatted diskette in Drive 1 if you are using 2 disk drives.) The screen shows:

```
WHAT IS THE DESTINATION
DIRECTORY - ENTER THE DESTINATION DATABASE
PATHLIST (/DX/NAME)
?
```

2. Enter a complete pathlist (drive and pathname) for the archived file. The screen shows:

```
SELECTION CRITERIA:
[                                    ]
```

3. Type your selection criteria exactly as you would for a report. The criteria should be based on the primary sequence in the current access method. Press [ENTER] to select all records. The screen shows:

```
DO YOU WISH TO DELETE THE
RECORDS AFTER THEY ARE COPIED
(Y/N) ?
```

4. Press [Y] to delete the selected records from the original diskette. Press [N] to retain all original records. The archive process begins.

After archiving is complete, the Management Utilities Menu appears again.

Because access keys are easy to redefine, they are **not** transferred to the newly created database. Before you use the new file, redefine your access methods.

Creating a Spreadsheet File

Use the Create a Spreadsheet File option to copy the data in your database into a file format compatible with the OS-9 Dynacalc program. The records are written to the disk in the order of the current access method. The fields are written in the order of the current display format. Only those fields included in the current display format are included in the new spreadsheet file. We recommend that you generate a specific access method and display format for creating (and reading) spreadsheet files.

Although this utility does not require 2 disk drives, we recommend that you do not create the file on the same diskette as your original file. Before you begin, format a blank diskette. The spreadsheet file will be placed on this diskette.

1. Press [C] at the Management Utilities Menu. The screen shows:

```
CREATE A SPREADSHEET FILE
WHAT IS THE FILENAME ?
```

2. Type a name for the file, and press [ENTER]. The name should be in this format: **/D*x*/*filename***. (*x* refers to the drive number.)

After the file is created, the Management Utilities Menu appears again.

Reading a Spreadsheet File

Use the Read a Spreadsheet File option to copy data into your database from an OS-9 Dynacalc file. The access method has no relevance, but the current display format determines the order and location for the incoming Dynacalc fields. Each column in the Dynacalc file should correspond to the respective entry in the display format both in size and field type. (When saving your file from Dynacalc with the /S#S command, use the **row** format rather than the column format.)

This utility requires either a complete OS-9 operating system or 2 disk drives. If you have a complete operating system, use the COPY command to copy the spreadsheet file to the backup of your OS-9 Profile diskette. If you are using 2 disk drives, place the Dynacalc spreadsheet diskette in Drive 1.

Before you begin:

Make a backup of your database diskette, and store it in a safe place. The transfer of Dynacalc records to your file is irreversible.

1. Press [D] at the Management Utilities Menu. The screen shows:

```
READ A SPREADSHEET FILE
WHAT IS THE FILENAME ?
```

2. Type the name of the Dynacalc file, and press [ENTER]. The name should be in this format: **/D*x*/*filename***. (*x* refers to the drive number.)

After the Dynacalc records are added to your file, the Management Utilities Menu appears again.

Renaming This Database

Use the Rename This Database option to change the name of the current database file. This is useful when archiving records and for permanently renaming a database. To rename a file, follow these steps:

1. Press [E] at the Management Utilities Menu. The screen shows:

   ```
   RENAME THIS DATABASE

   WHAT IS THE FILENAME ?
   ```

2. Type the new filename, and press [ENTER]. The Management Utilities Menu appears again.

Deleting Any Other Database

Use the Delete Any Other Database option to delete a database other than the current one. This utility requires 2 disk drives.

Before you begin:

Make a backup of the diskette from which you are deleting a database, and store it in a safe place. The delete process is irreversible.

1. Place the diskette from which you want to delete a database in a secondary drive, and press [F] at the Management Utilities Menu. The screen shows:

   ```
   DELETE ANY OTHER DATABASE

   WHAT IS THE FILENAME ?
   ```

2. Type the name of the database to delete, and press [ENTER]. The name should be in this format: ***/Dx/filename***. (*x* refers to the drive number.)

The Management Utilities Menu appears again.

Chapter 9

Using the OS-9 System Interface Main Menu Option H

Use the OS-9 System Interface option to access the operating system from your database. With the OS-9 options, you can view all database control and data files in the current directory, change to a different directory, change the amount of memory used by the access method sort process, and execute an OS-9 SHELL command.

Press [H] at the Main Menu for the OS-9 System Interface. The screen shows the Operating System Interface Menu:

```
          OS-9 PROFILE  vv.ee.rr
      COPYRIGHT 1985 COMPUTERWARE

   OPERATING SYSTEM INTERFACE

   A : VIEW A DIRECTORY
   B : CHANGE DIRECTORY
   C : CHANGE DATA AREA SIZE
   D : EXECUTE SHELL COMMAND
   E : RETURN TO PREVIOUS MENU



   ENTER SELECTION [ ]
   (PRESS BREAK TO EXIT)
```

The Operating System options are discussed on the following pages. After you finish with the Operating System Interface, press [E] (or [BREAK]) to return to the Main Menu.

Viewing the Directory

Use the View Directory option to display all control and data files for the current database. To view the directory, press [A] at the Operating System Interface Menu. The screen lists the files.

Press any key to return to the Operating System Interface Menu.

OS-9 Profile Filenames

DCTL—This is the name of the control file that is created when you create a new database. The control information is continually updated throughout your database session to maintain accuracy. Included in this file are the pointers used, the names of the different display and report formats, and the names of the access methods. The record field descriptors are also recorded here.

DRPT—This file contains the report formats.

DATA—This file contains the actual database records.

DISP—This file contains the display formats.

DKEY1-DKEY9—These are the sorted keyfield files used by the access methods (1-9).

Changing the Directory

Use the Change Directory option to change from the current directory to another one. **Do not use this option from within a database.** If you are in a database, press [BREAK] until the Database Selection Page appears.

1. At the Database Selection Page, press [ENTER]. The Operating System Interface Menu appears.

2. Press [B] at the Operating System Interface Menu. The screen shows:

```
ENTER NEW DIRECTORY PATHLIST :
```

3. Type the new pathlist in one of the following formats:

   /D*x*

   /D*x*/*directory*

   /D*x*/*directory*/*directory*/...

   x refers to a drive number, and *directory* refers to a directory name. You can include as many levels of directories as you need and have room for. Note, though, that to include a directory in your pathlist, you must have first created that directory with the OS-9 makdir command. (You can do this from the EXECUTE Shell Command option if you have a complete OS-9 Operating System diskette in one of your disk drives. If you are using a complete OS-9 diskette, refe to the *Getting Started With OS-9* manual for mor details on directories, pathlists, and the makdi command.)

After the pathlist is changed, the Operating System Interface Menu appears again.

Changing the Data Area Size

Use the Change Data Area Size option to allocate more memory space for sorting your database. Extra memory is temporarily allocated to the Access Methods sort process for sorting a large database. Note that the memory is used **only** by the sort process.

1. Press [C] at the Operating System Interface Menu. The screen shows:

```
BUFFER IS xx MEMORY PAGES.


CHANGE (Y/N) ?
```

2. Press [Y] to change the memory size or [N] to return to the menu. After you press [Y], the screen shows:

```
ENTER DATA SIZE IN PAGES ?
```

3. Type the amount of memory, in pages, required to sort your database, and press [ENTER]. (1 page = 256 bytes, 4 pages = 1K.) If you enter a value too low or high, OS-9 Profile displays an error message.

After memory size is changed, the Operating System Interface Menu appears again.

Executing a SHELL Command

Use the Execute SHELL Command option to execute an OS-9 SHELL command from the current database. The OS-9 Profile diskette contains only a minimal operating system. If you plan to use more advanced OS-9 features, such as multitasking, multiple directories and pathlists, or lowercase letters, you should also obtain a complete OS-9 Operating System diskette.

There are no limitations, other than available memory, on the OS-9 commands you execute from this option. If you have a complete OS-9 Operating System diskette, you can place it in one of your disk drives and execute any command on the diskette. If you are using only the OS-9 Profile diskette, the SHELL commands available are DELDIR, DIR, FREE, RENAME, and SETIME.

Follow these steps to execute a SHELL command from OS-9 Profile:

1. Press [D] at the Operating System Interface Menu. The screen shows:

```
ENTER SHELL COMMAND LINE :
```

2. Type the SHELL command, and press [ENTER]. After the command executes, the screen shows:

```
(PRESS ANY KEY TO CONTINUE)
```

3. Press any key to return to the Operating System Interface Menu.

Refer to the *OS-9 Commands* manual that comes with the OS-9 Operating System for more details on the SHELL and other OS-9 commands.

Chapter 10

Setting System Defaults Main Menu Option I

When you receive OS-9 Profile, your printer pathlist default is set for /P and your access method keyfile is set for automatic update. To change either of these defaults, press [I] at the Main Menu (for SET SYSTEM DEFAULTS).

```
SYSTEM DEFAULTS MENU

A: SET PRINTER PATHLIST
   CURRENTLY /P
B: DISABLE UPDATE OPTION
C: RETURN TO MAIN MENU
```

Press [A] to change the printer pathlist. You can set a different pathlist for each database file that you define. The current pathlist contains only the device name, /P, for the printer.

Type a new pathlist of up to 16 characters. Refer to your *OS-9 Commands* manual for details on pathlists.

Press [B] to disable automatic update for the access method keyfile. The current setting is to automatically update the keyfile (resort) when you exit the View/Update Records option.

The System Defaults Menu always shows the opposite of the current setting. ENABLE UPDATE OPTION appears when you press [B]. Pressing [B] a second time enables the update option again. Refer to "Sorting Your Records" in Chapter 6 for more information on using the automatic update feature.

Press [C] to return to the Main Menu.

PART 5
SAMPLE SESSION

Beginning the Sample Session

We have included a sample database file, ADDRESS, on your OS-9 Profile diskette. Using the ADDRESS file, follow the steps in this Sample Session to practice using OS-9 Profile before you set up your own database. The sample file uses a record format based on a simple address file. A display format, report format, and access method are already set up for you. Sample data records are also included. In the Sample Session, you review the existing sample database and make changes and additions to it as well.

Before you begin, back up your original OS-9 diskette. Use the backup to run the Sample Session, and store the original in a safe place.

To begin the Sample Session, turn on your Color Computer peripherals and computer. Start OS-9 and OS-9 Profile as instructed in Chapter 1. At the Database Selection Page, type **ADDRESS**, and press [ENTER]. The Main Menu for the ADDRESS file appears. (Note that, because the file is already set up, all menu options appear.)

```
                OS-9 PROFILE vv.ee.rr
        COPYRIGHT 1985 COMPUTERWARE

                  FREE:  xxxx   ADDRESS

    A : VIEW OR UPDATE RECORDS
    B : PRINT REPORTS
    C : DEFINE RECORDS
    D : DEFINE DISPLAY FORMATS [1]
    E : DEFINE REPORT FORMATS [1]
    F : DEFINE ACCESS METHODS [1]
    G : MANAGEMENT UTILITIES
    H : OS9 SYSTEM INTERFACE
    I : SET SYSTEM DEFAULTS

     SELECTION [ ]  (BREAK TO EXIT)
```

Reviewing the File's Record Format

The first thing you should do is look at the fields defined in the ADDRESS file's record format. At the Main Menu, press [C] for the Define Records option. The Define Record Format Menu appears.

```
          OS-9 PROFILE vv.ee.rr
       COPYRIGHT 1985 COMPUTERWARE

    DEFINE RECORD FORMAT

    A : VIEW RECORD FORMAT
    B : PRINT RECORD FORMAT
    C : VIEW A RECORD FIELD
    D : DELETE A RECORD FIELD
    E : UPDATE A RECORD FIELD
    F : ADD A RECORD FIELD
    G : RETURN TO MAIN MENU


    ENTER SELECTION [ ]
    (PRESS BREAK TO EXIT)
```

Now, press [A] at this menu to view the record format. The screen shows:

```
ADDRESS                RECORD FORMAT
DATABASE RECORD SIZE:    112
FIELD SIZE TYPE DESCRIPTION
 00   02   05  RECORD NUMBER
 01   25   01  NAME
 02   25   01  ADDRESS
 03   10   01  CITY
 04   02   01  STATE
 05   05   03  ZIP
 06   03   01  A-CODE
 07   03   01  PREFIX
 08   03   01  NUMBER
 09   08   02  DATE
 10   25   01  COMMENT
PRESS <ENTER> FOR PREVIOUS MENU
(USE UP/DOWN ARROW TO SCROLL)
```

So that you can refer to the record format later, print it on paper now. Press [ENTER] to return to the Define Record Format Menu. Be sure your printer is connected and ready to print, then press [B] at this menu for the Print Record Format option. PRESS <ENTER> TO CONTINUE PRESS BREAK TO ABORT appears at the bottom of the screen. Press [ENTER]. OS-9 Profile prints the record format and returns to the Define Record Format Menu.

Note that fields 01-04 are defined as alphanumeric fields for the NAME, ADDRESS, CITY, and STATE in the sample records. Field 05 is a numeric field defined for the ZIP code. Fields 06-08 are alphanumeric fields defined for the phone number, which is separated into the area code (A-CODE), PREFIX, and NUMBER. Field 09 is a DATE field, which has a predefined format (MM/DD/YYYY). The last field defined in the sample record format is for an alphanumeric COMMENT.

Now that you are familiar with the fields included in the sample record format, press [G] to return to the Main Menu.

Reviewing the File's Display Format

The next step is to take a look at the display format for the sample data. At the Main Menu, press [D]. The Display Format Definition screen appears:

```
DISPLAY FORMAT DEFINITION

   FREE:  xxxx   ADDRESS

<1>  ADDRESS-LIST
 2
 3
 4
 5
 6
 7
 8
 9

ENTER SELECTION [ ]
(PRESS BREAK TO EXIT)
```

There is 1 display format defined for the sample database. Press [1] to see the ADDRESS-LIST format. The screen shows:

```
FORMAT <1> [ADDRESS-LIST      ]
NAME:[........................]

ADDR:[........................]

CITY:[..........] ST.[..]

                      ZIP:[.....]

PHONE: [...] [...]-[....]

DATE:[..........]

COMMENT:
[........................]
      ENTER FORMAT TITLE :
```

The name of this display format appears at the top of the screen. The cursor appears on top of the first character (A) in the name of the display format. All 10 of the defined fields are included in the ADDRESS-LIST display format. Notice how the phone number is arranged on the display format screen; the 3 fields are placed together on 1 line. A blank space separates the area code from the telephone number, and a hyphen separates the prefix from the remainder of the number. Press [BREAK] to return to the Display Format Definition screen when you finish viewing the display format. Press [BREAK] again to return to the Main Menu.

Reviewing the File's Access Method

Now, press [F] to view the access method defined for the sample data. The Access Method Definition screen appears:

```
ACCESS METHOD DEFINITION

  FREE:  xxxx   ADDRESS
 Ø   BY RECORD NUMBER
<1>  NAME
 2
 3
 4
 5
 6
 7
 8
 9

ENTER SELECTION [ ]
(PRESS BREAK TO EXIT)
```

There is 1 access method defined for the sample database. Press [1] to see the sequence fields by which the NAME access method sorts. The screen shows:

```
ACCESS METHOD <1>

CONTAINS ØØØØ3 RECORDS
LAST UPDATE  ØØ/ØØ/ØØ

NAME: [NAME                ]

SEQUENCE FIELDS:
[Ø1] [ØØ] [ØØ]
```

The screen shows that the ADDRESS database contains 3 records, the database was last sorted on ØØ/ØØ/ØØ, and that this access method sorts only by field Ø1, the NAME field. The cursor appears on top of the first character in the name of the access method. Press [ENTER] 4 times to move the cursor to the bottom of the screen and begin sorting the sample data records. This option resorts the database records each

time you choose it. (Pressing [BREAK] before you move the cursor to the bottom of the screen exits without sorting the records.) After the sort is finished, the screen shows:

```
TEMPORARY FILES IN USE:      0
ANALYZING RECORD NUMBER      4

NOW SORTING      3 RECORDS
      SORT PASS #     2
WRITING TO KEY FILE #     2


(PRESS ANY KEY TO CONTINUE)
```

Press any key to return to the Access Method Definition screen. Now, press [BREAK] to return to the Main Menu.

Reviewing the File's Data Records

Now that you know how the file is set up, take a look at the data records that are already in the file. Press [A] at the Main Menu for the View or Update Records option. The View/Update Sub-Menu appears:

```
      OS-9 PROFILE     vv.ee.rr
ACCESS METHOD:    NAME

VIEW/UPDATE SUB-MENU

A: VIEW ENTIRE DATABASE
B: VIEW SELECTED RECORDS
C: DELETE RECORDS
F: UPDATE RECORDS
G: ADD NEW RECORDS

ENTER SELECTION [ ]
(PRESS BREAK TO EXIT)
```

NAME appears as the name assigned to the current access method. Note that options D (Restore Deleted Records) and E (Compress Profile File) do not appear on the View/Update Sub-Menu now. These options appear only when the database file contains deleted records.

To look at the records, press [A] for the View Entire Database option. The first record, as determined by the NAME access method, appears on the screen:

```
RECORD     1
NAME:[BILL FARMER                ]

ADDR:[561 WESTOAK AVE.           ]

CITY:[FT. WORTH ] ST.[TX]

                      ZIP:[76999]

PHONE: [800] [101]-[3782]

DATE:[01/11/1985]

COMMENT:
  [HOME AFTER 5:00 PM          ]
ANOTHER (Y/N)?
```

Press [Y] to view the next record (by NAME) in the database. Record 3 appears on the screen:

```
RECORD     3
NAME:[JACK SPARK                 ]

ADDR:[5267 1 POINT KATTER        ]

CITY:[MARS        ] ST.[NM]

                     ZIP:[64774]

PHONE: [200] [267]-[2526]

DATE:[05/02/1985]

COMMENT:
  [WILL MOVE IN AUG.           ]
ANOTHER (Y/N)?
```

Notice that record 2 was skipped. Remember that the records are sorted and displayed according to the current access method—in this case, the NAME field. The first record shown was that of BILL FARMER, now the record for JACK SPARK is shown. Press [Y] to see the next record in the ADDRESS database file. The screen shows record 2:

```
RECORD     2
NAME:[JILL ROWEN                    ]

ADDR:[156 E. 48TH ST.               ]

CITY:[CLINTON     ] ST.[MO]

                        ZIP:[56373]

PHONE: [100] [367]-[1666]

DATE:[09/12/1984]

COMMENT:
  [A FRIEND                         ]
ANOTHER (Y/N)?
```

Should the record for JILL ROWEN follow the record for JACK SPARK? In this case, yes. OS-9 Profile can do only what you tell it to do. The access method was defined to sort by the name, and the first names in these records were entered before the last names. The records are therefore sorted according to the first names.

Press [Y]. Because this is the last data record in the ADDRESS database file, OS-9 Profile returns to the View/ Update Sub-Menu.

Updating the Existing Data

Now, to correct the records so that they sort properly, reenter the names in the data records in this format *lastname, firstname*. Press [F] for the Update Records option. The screen shows:

```
ENTER KEYWORD ?
```

Press [ENTER]. The screen shows:

```
ENTER RECORD NUMBER ?
```

Type **1** [ENTER]. The record for BILL FARMER appears, and IS THIS THE ENTRY (Y/N)? appears at the top of the screen. Press [Y]. The cursor moves to the first character in the NAME field entry. Retype the name as follows, typing over the current entry:

FARMER, BILL [ENTER]

The cursor moves to the address entry. Press [↓] to move through the fields until TO SAVE RECORD, PRESS <ENTER> appears at the top of the screen. Press [ENTER]. A prompt appears at the bottom of the screen asking you if you want to update ANOTHER (Y/N)? Press [Y]. The screen shows:

```
ENTER RECORD NUMBER ?
```

Type **2** [ENTER]. The record for JILL ROWEN appears, and IS THIS THE ENTRY (Y/N)? appears at the top of the screen. Press [Y]. The cursor moves to the first character in the NAME field entry. Retype the name as follows, typing over the current entry:

ROWEN, JILL [ENTER]

The cursor moves to the address entry. Press [↓] to move through the fields until TO SAVE RECORD, PRESS <ENTER> appears at the top of the screen. Press [ENTER]. A prompt appears at the bottom of the screen asking you if you want to update ANOTHER (Y/N)? Press [Y]. The screen shows:

```
ENTER RECORD NUMBER ?
```

Type **3** [ENTER]. The record for JACK SPARK appears, and IS THIS THE ENTRY (Y/N)? appears at the top of the screen. Press [Y]. The cursor moves to the first character in the NAME field entry. Retype the name as follows, typing over the current entry:

SPARK, JACK [ENTER]

The cursor moves to the address entry. Press [↓] to move through the fields until TO SAVE RECORD, PRESS <ENTER> appears at the top of the screen. Press [ENTER]. A prompt appears at the bottom of the screen asking you if you want to update ANOTHER (Y/N)? Press [N] to return to the View Update Sub-Menu.

If you want to verify your changes to the records, you can choose option A to view the records.

Adding New Records

Now you are ready to practice adding records. Press [G] at the View Update Sub-Menu for the Add New Records option. A blank record for the first available record number (4) appears:

```
RECORD     4
NAME:[                                    ]

ADDR:[                                    ]

CITY:[              ] ST.[   ]

                     ZIP:[       ]

PHONE: [    ] [    ]-[      ]

DATE:[              ]

COMMENT:
  [                                     ]
 PRESS BREAK TO ABORT
```

Type the data for record 4 as follows:

NAME:[ASTER, MARY]

ADDR:[1616 WESTERN]

CITY:[DALLAS] ST.[TX]

ZIP:[75212]

PHONE: [214] [111]-[2323]

DATE:[08/15/1985]

COMMENT:
[NOT HOME ON SATURDAYS]

After you complete the data for record 4, TO SAVE RECORD PRESS <ENTER> appears at the top of the screen. Press [ENTER]. ANOTHER (Y/N)? appears at the top of the screen. Press [Y], and practice adding a few more records, pressing [ENTER] after each one is complete. The data you enter can be real or fictitious.

After you finish adding records, answer [N] to the ANOTHER (Y/N)? prompt to return to the View/Update Sub-Menu. Press [BREAK] at the View Update Sub-Menu to return to the Main Menu.

Reviewing the Report Format

The report format already defined for the ADDRESS sample database is designed for printing mailing labels. You should take a look at the format before you attempt to print sample labels. Press [E] at the Main Menu. The Report Format Definition screen appears:

```
REPORT FORMAT DEFINITION

   FREE:  #####  ADDRESS

<1>  MAIL
2
3
4
5
6
7
8
9

ENTER SELECTION [_ ]
(PRESS BREAK TO EXIT)
```

Press [ENTER] for the MAIL report format (the default). The screen shows:

```
REPORT <1> [MAIL                ]
ACCESS METHOD              [1]
LINE WIDTH                 [040]
LINES PER PAGE             [66]
MARGINS: LEFT              [00]
         TOP               [00]
         BOTTOM            [00]

NUMBER OF LINES OF:
         REPLICATIONS      [2]
         HEADINGS          [0]
         DETAIL            [5]
         SUB-TOTALS        [0]
         TOTALS            [0]

PRINT CODES  [000] [000] [000]
```

Press [↓] to move the cursor through the items on the screen and to the next screen. The report layout screen appears as follows:

```
FIELD #01 NAME

[.......................]
[.......................]
[........], []. [...]


++++5++++10+++15+++20+++25+++30++
```

After you finish viewing the report layout, press [ENTER] to return to the Report Format Definition screen. Then, press [BREAK] to return to the Main Menu.

Printing Mailing Labels

Now that you have reviewed the database formats and records and have added new records, print mailing labels for your sample data records. Press [B] at the Main Menu for the Print Reports option. Be sure your printer is connected, on-line, and ready to print. Then, press [1]. The cursor moves to the print code fields. Press [ENTER] 3 times to skip these fields. The SELECTION CRITERIA: prompt appears. Press [ENTER] to default to the entire database. OS-9 Profile begins printing the mailing labels.

The printed mailing labels look something like this (depending on the data you entered):

```
ASTER, MARY                    BARNES, WILL
1616 WESTERN                   4645 NE CHERRYWOOD
DALLAS    , TX. 75212          WASHINGTON, DC. 10912
```

```
FARMER, BILL                    HANKS, JOSEPH
561 WESTOAK AVE.                345 LANCASTER
FT. WORTH , TX. 76999           ELMHURST  , PA. 18276

JOHNSON, JAKE                   KEISLER, JAMES
656 WINSTON                     1423 JASMINE
EDGEWOOD  , TX. 76898           PASADENA  , CA. 90090

ROWEN, JILL                     SPARK, JACK
156 E. 48TH ST.                 5267 1 POINT KATTER
CLINTON   , MO. 56373           MARS      , NM. 64774

WILLIAMS, JESSE                 WILSON, DEBORAH
456 SANDCASTLE LANE             676 SANTA RITA
GALVESTON , TX. 77856           AUSTIN    , TX. 77064
```

After the labels are printed, OS-9 Profile returns to the Main Menu.

Wrapping Up

Continue practicing with OS-9 Profile using the sample data until you are thoroughly familiar with the system. For example, you can define another display format and report format. Then, you can add more records, using the new display format, and print another report.

After you finish the sample session, exit to OS-9. Remove the diskette that contains your Sample Session data, and store it in a safe place. You should keep this diskette for future reference and/or practice sessions.

You are now ready to set up your own OS-9 Profile database.

APPENDICES

Appendix A

Transferring Files from Color Profile

It is possible to transfer data files from Color Profile to OS-9 Profile. However, because the data structures of the two database programs differ, some fields are not transferrable. In general, though, this should not be a problem. You can transfer text, numeric, date, and math data types. Derived fields are recalculated by OS-9 Profile. Color Profile subrecords and tally items cannot be transferred. Also, because OS-9 Profile keeps a four-digit year, you must insert the first 2 digits into any date field you transfer.

We recommend that you familiarize yourself with OS-9 Profile **before** you begin transferring Color Profile data to it. You should review the sample database file and perhaps even create a small database from scratch, enter data into it, and print a report. This familiarity can save you hours of work when you actually perform the transfer.

The process of moving data from Color Profile to OS-9 Profile involves a number of steps. These steps are outlined in the order in which they need to be performed.

Important Note

Make backups of your work as you perform the transfer steps. Then, if you make a mistake, it is easy to go back to the diskettes as they were prior to the mistake, correct the problem, and rerun that portion of the transfer again. A wrong field length, incorrect display format, missing single quote, and many other seemingly small errors can cause large problems when OS-9 Profile reads the data.

1. Determine exactly which record fields you want to transfer from your Color Profile record. Also determine the order in which you want to transfer them, as well as their data types and lengths.

   After determining what data to transfer, verify that these fields and their characteristics are compatible with OS-9 Profile.

2. Create a Color Profile report format for the record fields. The format should contain only 1 field per line, no headers or totals, and must include a terminator line at the end.

   For example, the demo SALES file that came on your Color Profile diskette has 4 fields: Stock Number, Description, Sold By, and Price. The report format for transferring this file would include 5 detail lines, as follows:

   ```
   '!99999                    (the stock number)
   '!XXXXXXXXXXXXXXXXXXXX     (the description)
   '!XXX                      (the sold by field)
   !999999                    (the price)
   @                          (a terminator)
   ```

   The order in which you list the fields determines the order in which they must be later defined in OS-9 Profile.

   Notice that OS-9 Profile considers any field with a single quote mark in front of it to be alphanumeric. Typically, you want Color Profile types 1 and 2 (text and numeric) to transfer to OS-9 Profile as alphanumeric fields. For a date field, insert **19** before the year portion on the report (**'19!YYMMDD**). You may want to print the report for a few records to be sure that the data is listed correctly. All report margins should be set to 0.

3. Use Color Profile to save the report to a disk file. Use record number sequence unless you want the data transferred to OS-9 Profile in a specific order.

4. Use the Color Profile TRSCOPY utility to transfer the report file saved on the diskette to an OS-9 formatted diskette.

5. Use the OS-9 LIST command to display the data on the screen and verify that it looks correct.

6. Use the OS-9 BUILD command to create a 1-line file that contains only these 4 characters, **/ROW**. This becomes the header record for the file that OS-9 Profile transfers to a database.

7. Use the OS-9 MERGE command to merge the header and data files together. For example, if we name the header file HEADER and the data file TRANSFER. the format is:

   MERGE HEADER TRANSFER >MYDATA

8. Define an OS-9 Profile record format and screen format to **exactly** match the order of your data.

9. Now, use the OS-9 Profile Management Utility. Read Spreadsheet File, to load the data into the database you defined in Step 8.

Appendix B

System Error Messages

Certain problems can cause system errors while you are using OS-9 Profile. Many of the possible errors are "trapped" by OS-9 Profile. When a trapped error condition occurs, an informational error message appears. These messages frequently warn you of a situation for which you must take some action. A disk full error, for example, warns you not to add any more data to the diskette.

Following is a list of the most common system errors, along with their descriptions and any action you should take:

207	Memory Full	Request fewer pages
215	Disk File Reference Not Found	Check to be sure you are using the correct diskette
216	Disk File Reference Not Found	Check the spelling of the filename
218	Disk File Already Exists	Use a different filename
242	Diskette is Write Protected	Remove the foil tab and try again
243	Disk File CRC Error	This is usually a fatal flaw on your diskette; use your backup
244	Disk File Read Error	Try again—or use backup
245	Disk File Write Error	Try again—or use backup
246	Disk Drive Not Ready	Check the drive door
248	Diskette is Full	Make a backup—delete any unnecessary data and files—use a new diskette

There are many possible causes for errors 243-245. You may need to exit the database, remove all diskettes, turn off the computer, reseat the disk controller in the ROM slot, and try again. If repeated efforts fail, make another copy of your last backup diskette and try again.

Appendix C

BASIC Program for OS-9 Operating System Startup

If your Color Computer's BASIC is version 1.0 or if you do not have a complete OS-9 operating system, type in the following program and save it on a blank, BASIC-formatted diskette. This program boots OS-9 from BASIC.

```
10 REM **********************
20 REM * BOOT OS-9 FROM BASIC
30 REM **********************
40 FOR I=0 TO 70
50 READ A$
60 POKE &H5000+I,VAL ("&H"+A$)
70 NEXT I
80 CLS:PRINT"INSERT OS9 DISKETTE"
90 PRINT "INTO DRIVE 0 AND PRESS A KEY"
100 A$=INKEY$:IF A$="  "THEN 100
110 EXEC &H5000
120 DATA 86,22,8E,26,00,8D,0D
130 DATA FC,26,00,10,83,4F,53
140 DATA 26,03,7E,26,02,39,34
150 DATA 20,10,BE,C0,06,A7,22
160 DATA 86,02,A7,A4,6F,21,6F
170 DATA 23,6C,23,AF,24,10,BE
180 DATA C0,06,A6,23,81,13,27
190 DATA 12,AD,9F,C0,04,4D,27
200 DATA 06,6C,23,6C,24,20,E9
210 DATA 7F,FF,40,35,A0,4F,20
220 DATA F8
```

Save the program on the formatted diskette to create an OS-9 boot diskette. Type:

```
SAVE "*"
```

RADIO SHACK, A Division of Tandy Corporation

U.S.A.: FORT WORTH, TEXAS 76102
CANADA: BARRIE, ONTARIO L4M 4W5

AUSTRALIA	BELGIUM	FRANCE	U. K.
91 Kurrajong Avenue Mount Druitt, N.S.W. 2770	Rue des Pieds d'Alouette, 39 5140 Naninne (Namur)	BP 147-95022 Cergy Pontoise Cedex	Bilston Road Wednesbury West Midlands WS10 7JN

The **OS-9 Profile®** database system is an information manager for your Color Computer. OS-9 Profile stores almost any type of data, letting you retrieve it with a few quick keystrokes. You can design up to 9 screen display formats for each file.

Store as many records as you have room for on your diskette and define a record to include as many as 35 fields. If you are using more than 1 disk drive, store this data on a separate diskette.

This program also lets you create up to 9 different reports for each file. Use these reports to print your stored information as well as the results of calculations performed by OS-9 Profile.

Use OS-9 Profile to sort your records by defining up to 9 different access methods, using as many as 3 different levels of sorting per

OS-9 Profile is easy to use and has dynamic menus that show only the options currently available. OS-9 Profile also lets you work with the OS-9 operating system and read a Dynacalc™ file into a database and write a database file in Dynacalc format.

Required Equipment

- Tandy® Color Computer with 64K and at least 1 disk drive (2 or more are recommended)
- Television (color recommended)

Optional:

- Printer with a serial interface, such as the Tandy DMP-105, DMP-110, DMP-120, DMP-430, or DWP-210
- OS-9 Disk Operating System
- Additional disk drives

11/85-TM 874-9819 Printed in U.S.A.