Computer Museum

Series 100/MailMerge™

HEWLETT PACKARD

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For research and education purposes only.
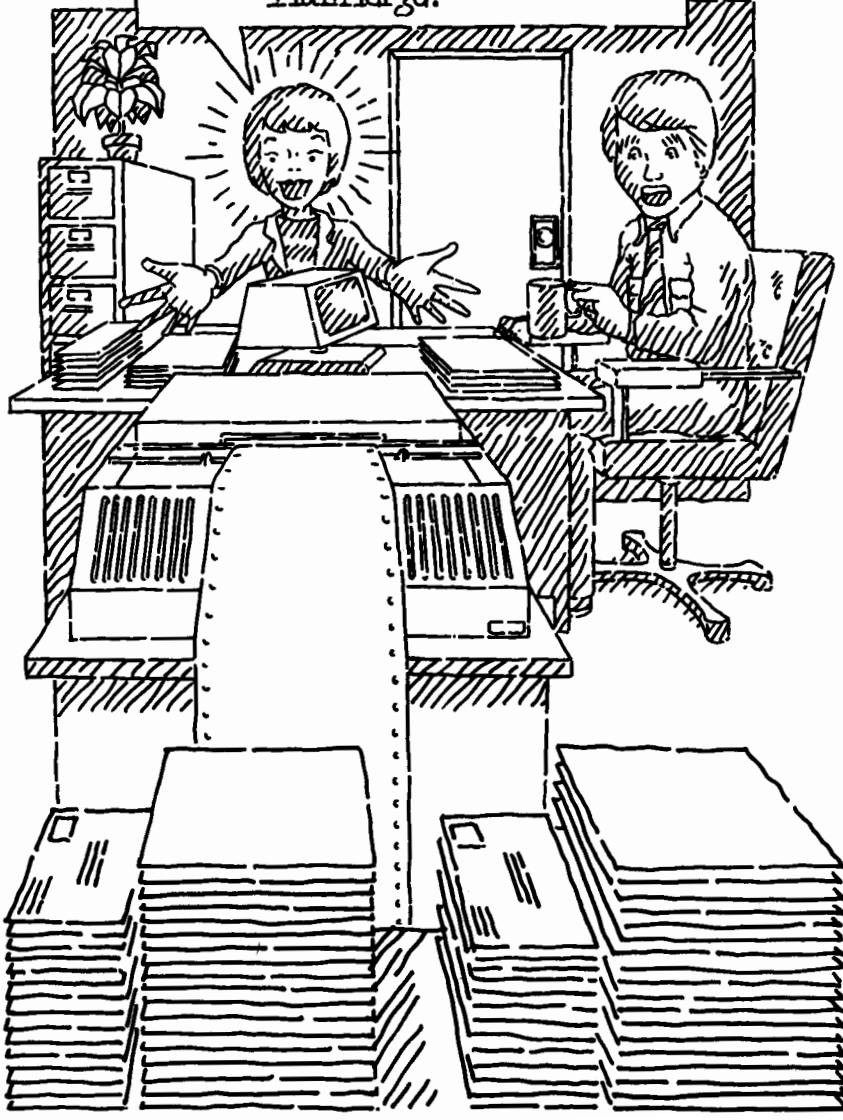
1. Welcome to MailMerge

...introducing you to MailMerge...

WHAT YOU HAVE   Your MailMerge package includes this manual and a disk that contains a file called MAILMRGE.OVR.
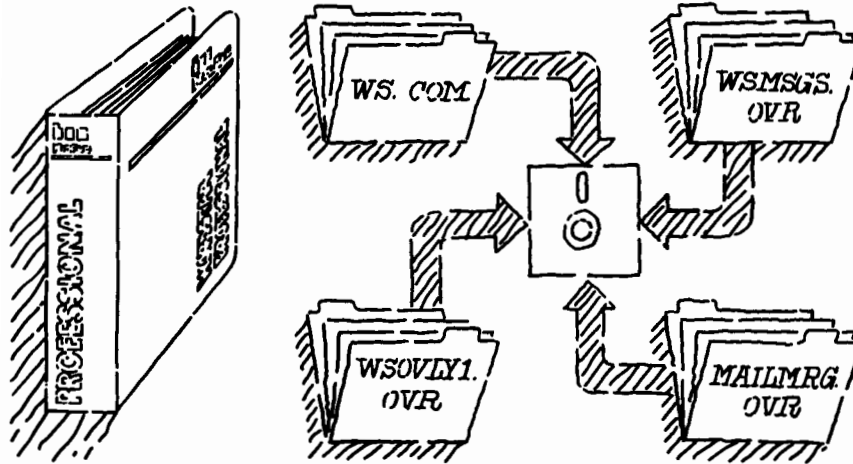
WHAT YOU NEED   You must use MailMerge with WordStar. Talk to your dealer if you need more information about your computer, printer, and operating system. If you have a working knowledge of WordStar and the necessary four files listed below, you can use MailMerge.

Check the Program Specification Sheet in Appendix A for computer memory requirements.

- WS.COM

- WSMSGS.OVR

- WSOVLY1.OVR

- MAILMRGE.OVR

A GUIDE TO THIS MANUAL

The MailMerge manual is made up of four chapters which build upon your knowledge of WordStar. You will also find information on MailMerge in the WordStar Training Guide. This manual is organized to present concepts and procedures separately. Chapters 1 and 2 describe the concepts of MailMerge. Chapter 3 describes all the MailMerge commands and the procedures for preparing your files. Chapter 4 tells you how to print those files. The Appendices list program specifications, error messages, and uses for MailMerge.

Cartoons will guide you through this reference material on MailMerge. The following symbols will also help you.

SYMBOLS USED IN THIS MANUAL

'Remember'

'Caution'

RETURN

'Return'

'CTRL'
the control key

⊂⟶ 5 or WS
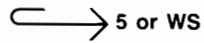
'Refer'
Refer to the page listed or the WordStar Reference
Manual index for more information.

'Commands'
One of these large command symbols appears
alongside text that offers the most thorough coverage
of the command.

OVERVIEW

MailMerge is a program that works with WordStar to perform special printing tasks. Merging is its secret. MailMerge takes information from various locations and inserts it into a WordStar document file, automatically re-forming paragraphs if the information extends beyond the margins. With WordStar and MailMerge working together, you can accomplish sophisticated printing tasks.

Personalized Form Letters: MailMerge will take a mailing list from one file and a form letter from another to produce individual letters.

Contracts or Standard Documents: MailMerge can change words in a standard document or insert standard paragraphs so that you don't have to retype the words and paragraphs each time they're needed.

Joining Files: MailMerge will print several files in one session to produce one continuous document. One file can be put inside of another, a useful feature for inserting standard paragraphs. Or one file can follow another, as in the chapters of a book.

MailMerge is a very important member of the MicroPro family of products because it links WordStar to MicroPro data products. For example, MailMerge will take customer information from invoice forms made in DataStar and insert it into a form letter created in WordStar. MailMerge and WordStar are an unbeatable pair that gets stronger when they team up with the rest of the MicroPro family.

2. Ideas

...concepts of the MailMerge
program...

HOW MAILMERGE WORKS

MailMerge moves information for you. More specifically, it can merge, connect, and insert.

MailMerge is like the switchman at a railway yard. As the switchman takes orders from the yardmaster, MailMerge takes commands from you.

When trains come down several tracks in the switching yard, the switchman can merge cars from one train with cars from another. MailMerge can merge information (data) from a mailing list into text to create a personalized letter.

The Switchman can... let each train onto the track one at a time

...or merge cars from one train to another...

...or connect trains end to end.
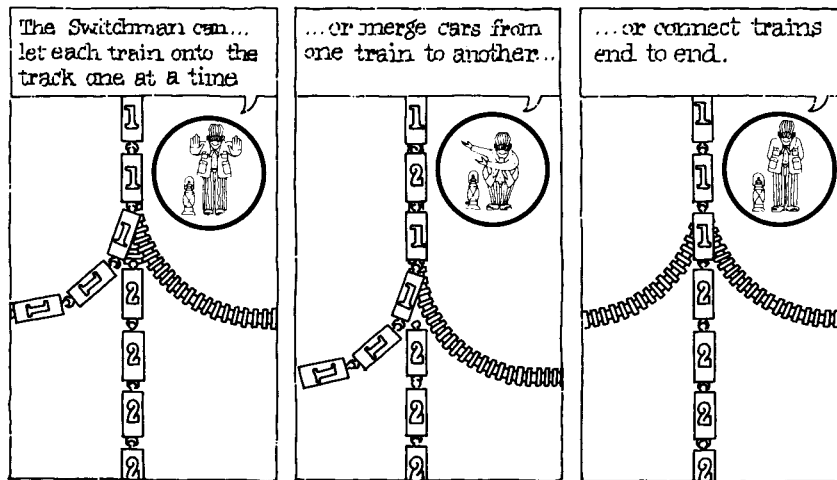
The switchman can also connect trains end to end to make one long train. Similarly, MailMerge can connect chapters end to end to make a book. When you give the command to print the first chapter, the program automatically prints the others in succession. This connecting is called chaining.

Although the switchman is not able to put one train inside another, MailMerge can insert text inside of text. For example, you can command the program to print the introductory paragraph of a contract, then print another file which contains a .Table of Authorities or references, and then resume printing the contract. This inserting is called nesting.

After you give commands to MailMerge, you press **M** at the WordStar Opening Menu and either print a document or produce an output file on a disk.

DATA

The data which MailMerge uses come from three sources:

- Datafiles created by MicroPro's data and calc products or WordStar in non-document mode.
  ⊂⟶ WS

- An operator who enters data at the terminal at the time of printing. ⊂⟶ 3-18

- A command at the top of the document itself.
  ⊂⟶ 3-22

DATAFILES

A datafile is a group of related pieces of information (called records) stored together on a disk. You store records in your computer file just as you store them in a filing cabinet. A datafile can be a file of invoices or a mailing list, e.g., all the names and addresses on the Galactica Corporation customer list shown in the illustration which follows.

DATAFILE

DATA FIELD

DATA RECORD

```
CUSTOMER.DTA
1. Dee Skies. 77 Sunset Strip. "Hollywood, CA"
2. Flash Gordon.. Outer Space
3. Polly Polaris. 664 Etoile Court. "Jacksonville. FL"
```

2. Ideas
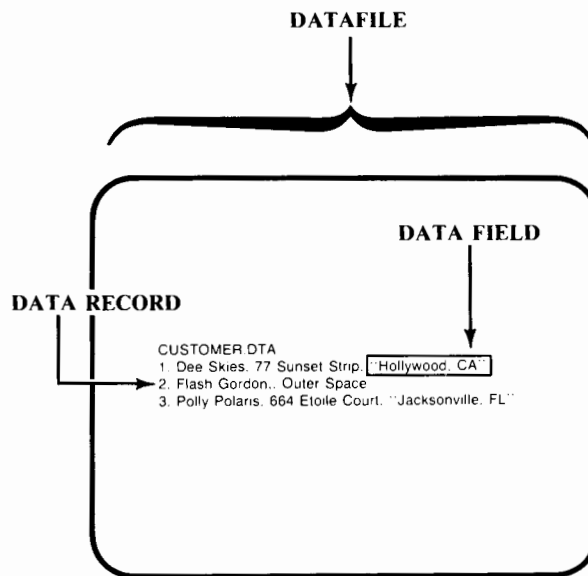
DATA RECORDS
A data record contains a set of related information. It could be information from a single invoice or from a single entry on a mailing list. Dee Skies is a customer of the Galactica Corporation. When her name and address are entered into a datafile, they become a record. Each time a new name and address is added to the mailing list, a new record is created.

DATA FIELDS
A data field is a single item of information on the mailing list. Dee Skies' name, title, address, and zip code are entered into data fields. Every record in the datafile must have the same number of fields in the same order. Fields are identified by number or by name. For example, the field which contains Ms. Skies' address could be called the address field or the third field.

NOTE: You can create datafiles by using WordStar in non-document mode. This procedure is described in Chapter 3 of this document and in the WordStar Reference Manual. A better way to create datafiles,

however, is to use MicroPro's DataStar program. With DataStar you design a form, such as an invoice, then fill in the blanks. The data you enter into the blanks (or "data fields") are stored on disk as a datafile. Each completed form is a separate record. DataStar automatically puts the required commas and carriage returns in the proper place so that MailMerge can "read" the file (see Chapter 3).

VARIABLE DATA   Variable data is information that changes from document to document. If you use the proper commands, MailMerge will merge data into text automatically and continuously to produce personalized letters. The text remains the same, but the data, such as the specific information in the address field of a data record, change with each copy.
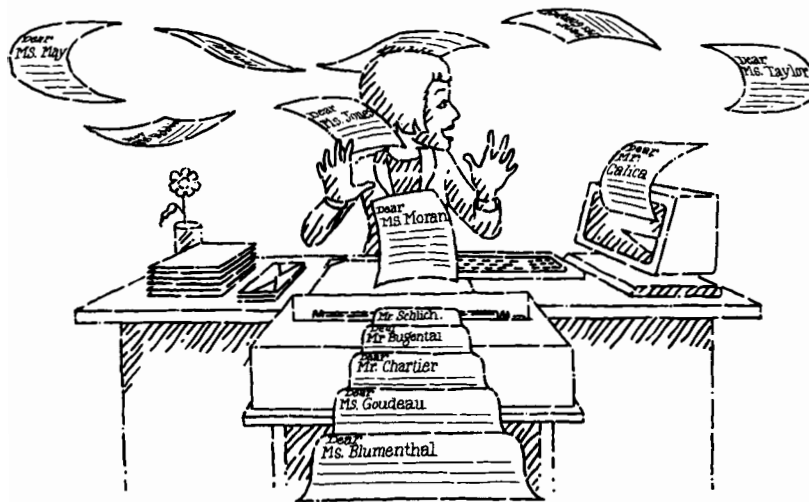
MASTER   A master document, sometimes called a matrix
DOCUMENT   document, provides the text into which you merge data. The text in a master document remains the same each time you print; it could be the body of a form letter or a contract, for example.

A master document is like a form to be filled in. When given the appropriate command, MailMerge puts data into the proper places. In everyday language, the command tells MailMerge, "Find the variable data for address or phone or name and put them in the text at the indicated place." In the place where you want variable data inserted, you put special names, called generic names. You enclose the generic names in ampersands (**&**). MailMerge recognizes the ampersands and the generic names and replaces the generic names with the variable data. Chapter 3 includes a large illustration of a master document. ⊂——➔ 3-2

A master document is a document file that contains the following:

- dot commands ⊂——➔ WS

- text

- generic names ⊂——➔ 3-8

NOTE: Sometimes you put only dot commands in a document file. This file, called a command file, is discussed later in this chapter. A command file and a master document are not distinct types of files. They are just different names given to WordStar document files.

DOT COMMANDS   When you use WordStar, you indicate how you want the printed page to look by putting dot commands in your document file.

A dot command begins with a period (dot) typed in the first column of a WordStar file. The dot is followed by two characters. The two characters are sometimes followed by a space and more characters. A dot command must always end with a hard carriage return.

MailMerge obeys WordStar dot commands as well as its own. In MailMerge, dot commands control not only merging, but also other aspects of the printing process.

The following MailMerge dot commands will be explained in Chapter 3.

Commands for merging data:

.DF	Define File	p. 3-13
.RV	Read Variables	p. 3-14
.AV	Ask (for) Variables	p. 3-18
.SV	Set Variables	p. 3-22

Command for inserting files:

.FI	File Insert	p. 3-24

Command for multiple copies:

.RP	Repeat	p. 3-26

Commands for re-forming text at printing time:

.PF	Print Time Line Forming	p. 3-29
.OJ	Output Justification	p. 3-31
.IJ	Input Justification	p. 3-32

Commands for screen displays:

.DM	Display Message	p. 3-32
.CS	Clear Screen	p. 3-34

GENERIC NAMES A generic name, sometimes called a variable name or variable reference, is a name for variables. It is a general term that describes a set of similar data. For example, the many different towns on a mailing list might be grouped under the generic name "City" or "Town." (You can choose whatever generic name you like.) You can also use symbols and abbreviations as generic names. MailMerge recognizes a generic name for variables in the text when ampersands (&) enclose the name.
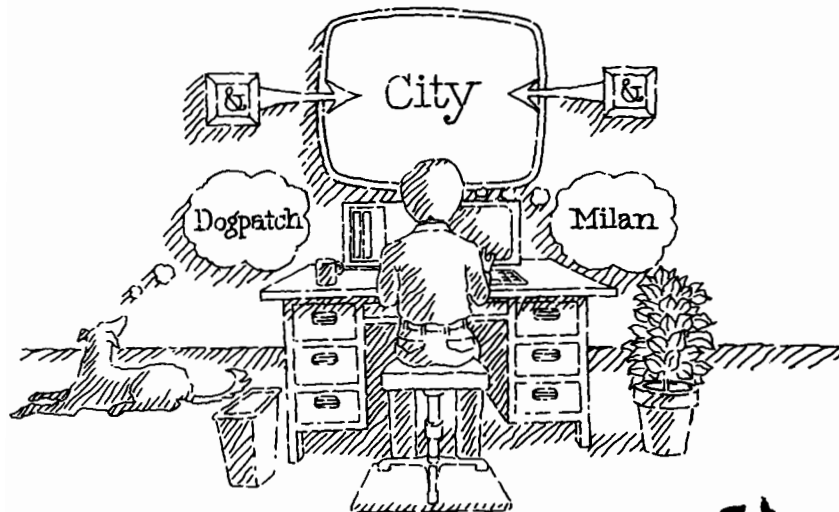
Some examples follow:

If variable data were

Milan, Paris, Tokyo, New York

the generic name might be

**&CITY& or &City& or &TOWN& or
&ADDRESS2&**

If variable data were

94114, 94116, 89997

the generic name might be

&ZIPCODE& or &Zip-Code& or &ZIP&

CHAIN PRINTING   Chain printing is the printing of one file after another. By putting a dot command that names another file at the end of a file, you command MailMerge to print the other file automatically. There is no limit to the number of files which can be printed in a chain.

Even files from different disks can be chained together. MailMerge accepts a command requesting an operator to change a disk during printing.

NESTED PRINTING   Nested printing is the printing one file inside another. You can put a dot command in a file where you want another file to be inserted. Then you command MailMerge to print the file which is named in the dot command before continuing to print the original file. For example, a campaign letter might have standard opening and closing paragraphs. Intervening paragraphs, however, might be written only for particular constituencies. Those intervening

paragraphs could be "nested" inside the campaign letter with a MailMerge dot command. You can also nest a file within a file which is itself nested. In this case, nesting is limited to a maximum of seven levels.
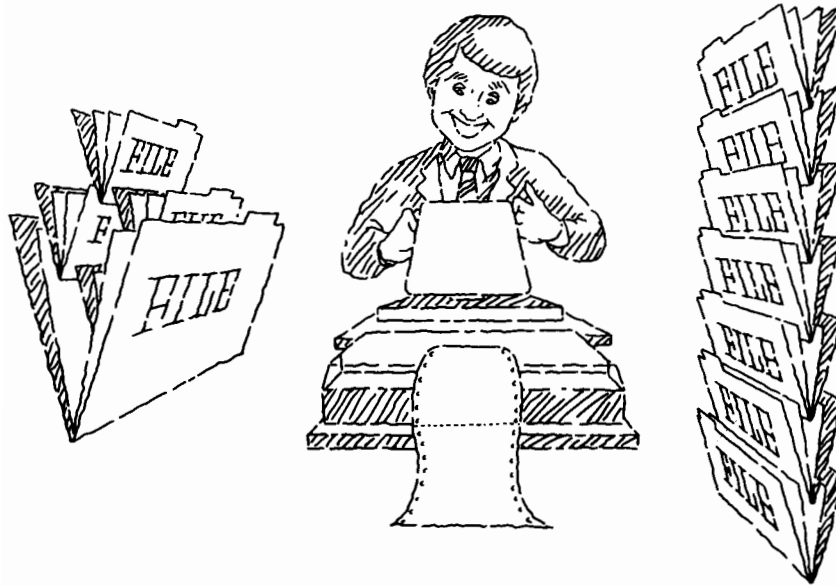
COMMAND FILES   A command file is a document file that contains mostly dot commands. A command file is like a recipe for printing with MailMerge. You put all of your MailMerge and WordStar dot commands into one file and then print that file with **M** at the Opening Menu. For example, by creating a command file, you can chain print all the chapters of a book without opening and editing each of the files which contain those chapters. Or you can print envelopes and letters in one printing session by putting the appropriate commands in a command file.

3. Preparation

...preparing documents for
MailMerge...using the program's
dot commands...

Many of the actions you take to prepare documents
for MailMerge seem complex the first time you try
them, but they soon become second nature. This
chapter describes those actions in step by step
procedures. Sometimes not all of the steps are
explained under the heading for a procedure, but
arrows will indicate where information can be found
on subsequent pages. For example, all the steps for
creating a master document start on page 14, but
arrows indicate that more information on the dot
commands used in a master document can be found
elsewhere in the chapter. Before you learn to prepare
documents, you must read Chapters 1 and 2 and
know how to use WordStar.

MailMerge only works with WordStar.

**GETTING
STARTED**

Before you begin, make a copy of the MailMerge
program file and store the original in a safe place.
Ask your dealer for help or refer to your operating
system manual.

BASIC ACTIONS

To prepare to use MailMerge, you must take these
basic actions:

- Make sure your computer is logged on to the drive
  which contains the MailMerge disk.

- Put dot commands in a WordStar document file.

- Supply variable data for merging. You may supply
  data by creating a datafile and giving MailMerge a
  command to "read variables" from that file. You

may also enter data through the keyboard at the time you are printing, a process called "asking for variables." And finally, you may put data in a dot command in the master document, a process called "setting variables."

NOTE: If you are chaining or nesting, you do not need to supply variable data for merging.

A MASTER DOCUMENT

Before you can merge data into text, you must create a master document. This section presents the procedure for creating a simple master document. The arrows tell you where to find more information about the dot commands you can use. An illustration of a master document follows:

```
B:LETTER

L----!----!----!----!----!----!----!----!----!----!----!----!----R

.OP
.DF CUSTOMER.DTA
.RV N,NAME,TITLE,STREET,LOCALE,ZIP,PRODUCT
.SV DATE, August 30, 1982
.AV SIGNATURE

                                        &DATE&
&NAME&
&TITLE/O&
&STREET/O&
&LOCALE& &ZIP&

Dear Stargazer,

Congratulations! Your purchase of &Product& is your introduction to an all-star
attraction, the MicroPro family of software. We know you and your neighbors in
&Locale& will be pleased with &Product& and will want to meet the other members
of this stellar family.

So keep in touch with your dealer for upcoming "star" attractions.

Sincerely,


&Signature&
MicroPro International
.PA
------------------------------------------------------------------
```

A dot command must always begin in the first
column of a document file, may be no longer than
240 characters, and must end in a carriage return.
Dot commands may be typed in upper or lowercase
letters.

HOW TO CREATE
A MASTER
DOCUMENT

Follow these STEPS to create a master document:

STEP 1   Start WordStar.

STEP 2   Open a document file. ⊂⟶ WS

STEP 3   Enter the WordStar dot commands that
affect page numbering. (.OP or .PN)

STEP 4   (OPTIONAL) Enter the WordStar dot
commands to design the printed page (for
example, .PL, .MB.).

STEP 5   (OPTIONAL) Enter the MailMerge dot
commands for screen display. (.DM) (.CS)
⊂⟶ 3-32

STEP 6   When data are stored in a datafile, enter
the MailMerge dot command followed by
the name of a datafile. (.DF) ⊂⟶ 3-13

STEP 7   Enter other WordStar dot commands if
desired.

STEP 8   Enter the MailMerge dot commands to
supply variable data. (.RV) ⊂⟶ 3-14
(.AV) ⊂⟶ 3-18 (.SV) ⊂⟶ 3-22

STEP 9   Type the text and enclose generic names in
ampersands (**&**) where you want
MailMerge to insert variable data. Do not
add extra spaces. MailMerge will justify
text when it prints and margins will be
aligned.

If a record in a datafile has an empty
field, type a slash and the letter **O** (**/O**)
immediately after the generic name but

before the closing ampersand. Unless you insert **/O**, MailMerge will leave a blank space in your text where it finds no variable data. ⟾ 3-10

NOTE: **/O** will only work when the generic name that it follows is on a line by itself. Do not use **/O** after a generic name within text.

STEP 10 Enter the WordStar dot command for page breaks. (.PA)

STEP 11 Save the file.

If you complete these steps and have given data to MailMerge, you are ready to print.

A SAMPLE MASTER DOCUMENT

The illustrations on the following pages show examples of a datafile, a master document, the screen at printing time, and some of the letters that would be produced if the master document were printed with MailMerge. The sample uses all three of the commands which supply data for merging (.AV, .SV, .RV). Comments tell you what the dot commands mean.

Here is the datafile:

1st field = a number (N)   4th field = STREET   7th field = PRODUCT

   2nd field = NAME   5th field = LOCALE   A carriage return (<) ends each record.

      3rd field = TITLE   6th field = ZIP

```
B:CUSTOMER.DTA
1.Dee Skies,Astrologer,77 Sunset Strip,"Hollywood, CA",90025,WordStar     <
2.Flash Gordon, ,99 Nova Avenue,"Dallas, TX",75231,InfoStar              <
3.Patrick Pollux, .33 Galaxy Circle,"Century City, CA",90068,InfoStar    <
4.Sky King,Rancher, ,"Missoula, MT",59802,WordStar                       <
5.Polly Polaris,SpaceC  eworker,66  Stone Court,"Jacksonville, FL",33152,WordStar  <
```

Each full line is a record containing 7 fields.

Sometimes fields are empty, but commas hold the place.

When the data in a field include a comma, quotes surround the field.

Here is the master document:

"Omit page numbers."   "Set the date automatically
for each letter at
August 30, 1982."

"Find the datafile called   "Read the variable data in
CUSTOMER.DTA."   the datafile for all these
fields."

```
 LETTER
 L----!--.-!----!----!----!----!----!----!---!----!----!----!----!-----R
 .OP
 .DF CUSTOMER.DTA
 .RV N,NAME,TITLE,STREET,LOCALE,ZIP,PRODUCT
 .SV DATE, August 30, 1982
 .AV SIGNATURE

                              &DATE&

 &NAME&
 &TITLE/O&
 &STREET/O&
 &LOCALE& &ZIP&

 Dear Stargazer,

 Congratulations! Your purchase of &Product& is your introduction to an all-star
 attraction, the MicroPro family of software. We know you and your neighbors in
 &Locale& will be pleased with &Product& and will want to meet the other members
 of this stellar family.

 So keep in touch with your dealer for upcoming "star" attractions.

 Sincerely,


 &Signature&
 MicroPro International
 .PA
 -------------------------------------------------------------------------
```

"Ask the operator to enter
a signature at printing
time."

"Begin a new page
here."

"Insert data here and in
the body of each letter. If
there is no title or street,
don't leave a blank line."

Here is the screen at printing time:

The .AV command puts
this request on the screen.
MailMerge won't print
until the operator enters a
response.

```
MailMerge printing B:letter not editing


     P  =  Stop PRINT


SIGNATURE? Jay Salesman                          RETURN
SIGNATURE? Jay                                   RETURN
SIGNATURE? Jay
```

Here are the first two letters:

```
                                    August 30, 1982
Dee Skies
Astrologer
77 Sunset Strip
Hollywood, CA 90025

Dear Stargazer,

Congratulations! Your purchase of WordStar is your introduction to an all-star at-
traction, the MicroPro family of software. We know you and your neighbors in
Hollywood, CA will be pleased with WordStar and will want to meet the other
members of this stellar family.

So keep in touch with your dealer for upcoming "star" attractions.

Sincerely,


Jay Salesman
MicroPro International
```
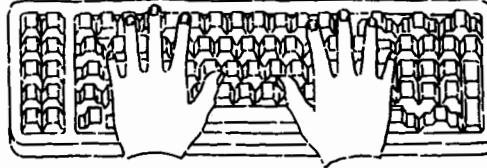
```
                                    August 30, 1982
Flash Gordon
99 Nova Avenue
Dallas, TX 75231

Dear Stargazer,

Congratulations! Your purchase of InfoStar is your introduction to an all-star at-
traction, the MicroPro family of software. We know you and your neighbors in
Dallas, TX will be pleased with InfoStar and will want to meet the other members
of this stellar family.

So keep in touch with your dealer for upcoming "star" attractions.

Sincerely,


Jay
MicroPro International
```

Here are the other letters:

August 30, 1982

Patrick Pollux
33 Galaxy Circle
Century City, CA 90068

Dear Stargazer,

Congratulations! Your purchase of InfoStar is your introduction to an all-star at-
traction, the MicroPro family of software. We know you and your neighbors in
Century City,
members of t

So keep in to

Sincerely,

Jay Salesmar
MicroPro Inte

August 30, 1982

Sky King
Rancher
Missoula, MT 59802

Dear Stargazer,

Congratulations! Your purchase of WordStar is your introduction to an all-star at-
traction, the MicroPro family of software. We know you and your neighbors in
Missoula, MT
members of tt

So keep in to

Sincerely,

Jay Salesman
MicroPro Inter

August 30, 1982

Polly Polaris
Space Caseworker
664 Etoile Ct.
Jacksonville, FL 32213

Dear Stargazer,

Congratulations! Your purchase of WordStar is your introduction to an all-star at-
traction, the MicroPro family of software. We know you and your neighbors in
Jacksonville, FL will be pleased with WordStar and will want to meet the other
members of this stellar family.

So keep in touch with your dealer for upcoming "star" attractions.

Sincerely,

Jay Salesman
MicroPro International

USING GENERIC NAMES IN THE MASTER DOCUMENT

A generic name is a general term that describes a set of similar data.

You use generic names in two places in the master document:

- In the commands to supply variable data (.RV, .AV, .SV). Notice that the generic names are *not* enclosed in ampersands when used in these commands.

- In the text wherever you want MailMerge to insert data. Here the generic names *are* enclosed in ampersands.

When you use generic names in the text, you always surround them with ampersands (**&**). Then MailMerge knows that it must fill that place with variable data. A **.RV** command contains generic names for all the fields in a datafile. But you do not need to use all of these generic names in your text. Put generic names only where you want data.

An example of generic names chosen to match the fields of a datafile follows:

```
A:EMPLOYEE.LST

201,Davis,Jeffrey,"August 2, 1982","17,000"
202,Bloom,Molly,"January 15, 1980","45,000"
203,Ying,April,"March 4, 1981","28,000"
```

These fields might be given the generic names N (for number), LAST (for last name), FIRST (for first name), DATE (for date), and AMT (for salary). They would then be used in a master document. In the following illustration, notice that even though the date is a field in the datafile and the generic name DATE is in the **.RV** command, &DATE& is not used in the text.

```
B:PERSONEL.REC

DF EMPLOYEE.LST
RV N,LAST,FIRST,DATE,AMT

NUMBER: &N&                          NAME: &LAST&, &FIRST&
                                     SALARY: &AMT&
PA
-------------------------------------------------------------------
```

NOTE: The order of generic names in the command
.RV is the same as the order of the fields in the
datafile.

The following is an example of a datafile and the
corresponding generic names in a master document.
The master document uses dot commands which
"read," "ask for," and "set" variable data at
printing time.

```
ORDER.DTA
Business Electronics,1700 Fifth Ave.,"New York, NY",10011,Mr. Smith,Gizmos
Computer Devices,1455 Van Ness,"San Francisco, CA",94926,Ms. Jones,Whatzits
```

```
.DF ORDER.DTA
.RV NAME,ADDR1,ADDR2,ZIP,BUYER,PRODUCT
.AV QUANTITY
.SV MONTH,JANUARY

                                        &MONTH&

BILL TO: &NAME&                SHIP TO: &NAME&
         &ADDR1&                        &ADDR1&
         &ADDR2& &ZIP&                  &ADDR2& &ZIP&
ATTN: &BUYER&                  Balance Due
&QUANTITY& &PRODUCT&

PA
---------------------------------------------------------------------
```

At printing time, the screen would look like this:

```
Quantity?
```

After the operator typed a response to the prompt,
an order would be printed. Variable data from the
datafile would fill the spaces held by &NAME&,
&ADDR1&, &ADDR2&, &ZIP&, &BUYER&, and
&PRODUCT&. The generic name &MONTH& would
be replaced by January, and the operator's response
would fill the space held by &QUANTITY&.

Sometimes you may not have data in a field in a record. For example, the following datafile has no data in the third field of the second record. The empty field is indicated by the two commas after the name "Flash Gordon." This field might be represented in the text of a master document as &TITLE&.

```
1,Dee Skies,Astrologer,77 Sunset Strip,"Hollywood, CA",90025,WordStar
2,Flash Gordon,,99 Nova Avenue,"Dallas, TX",75231,DataStar
```

To prevent MailMerge from inserting a blank space into the text where &TITLE& appears, you add "/O" (slash, capital O) after the generic name and before the closing ampersand. The generic name would then look like this:

```
&TITLE/O&
```

The master document would contain the following generic names in a salutation:

```
&NAME&
&TITLE/O&
&ADDR&
&CITY-STATE& &ZIP&
```

The following would be the printed results for both records:

```
Dee Skies
Astrologer
77 Sunset Strip
Hollywood, CA 90025
```

```
Flash Gordon
99 Nova Avenue
Dallas, TX 75231
```

RULES FOR GENERIC NAMES

- Use one to forty letters in upper or lowercase and digits or hyphens. Do not use any other characters.

- Do not use a digit or a hyphen as the first character.

- Select generic names for each field in a record in a datafile and, if using a **.RV** command, list them in the same order they appear in each record.

- You do not need to use all the generic names in the text of the master document.

- Surround generic names with ampersands in the text of a master document. MailMerge will not print the ampersands.

NOTE: MailMerge will print ampersands that do not enclose generic names.

- Do not surround generic names with ampersands in **.RV**, **.SV**, or **.AV** commands.

DOT COMMANDS FOR MERGING DATA

You use dot commands to merge data into text. These commands are put at the top of a master document in column one. The order of the commands is not important except when you use the dot commands **.DF** and **.RV** to merge data. (The .DF command always precedes the .RV command.) Furthermore, the number and combinations of dot commands you may use are not limited unless you are using the command which defines a datafile.

HOW TO GIVE DATA TO MAILMERGE

There are three methods and four dot commands to put variable data into a document:

- **Read Variables** (.RV) from a **datafile** (.DF). This combination of dot commands makes MailMerge print documents repeatedly until all the data

available from the datafile have been inserted. The two commands must be used together. Without the **.DF** command which names the datafile to be used as a source, the command to read variables is meaningless. MailMerge must have something to "read." And without the command to read variables, MailMerge will find the datafile but will not know what to do with it.

```
.DF CUSTOMER.DTA
.RV N,NAME,TITLE,STREET,LOCALE,ZIP,PRODUCT

&NAME&
&TITLE/O&
&STREET/O&
&LOCALE& &ZIP&
```
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~&PRODUCT&
~~~~~~~ &PRODUCT& ~~~~~~~~~~~~~~~~~~~~~~~~~
~~~~~~

- **A**sk (for) **V**ariables (.AV). This command asks the operator to enter information every time it is needed in a document. The dot command which requests variable data is put in the master document, and, at printing time, the request appears on the screen. Printing pauses until an operator enters information to be merged into the text being printed.

```
.AV SIGNATURE

&SIGNATURE&
```

- **Set V**ariables (.SV). This command sets the variable data within a document every time the generic name enclosed in ampersands is encountered in the text. This dot command, which includes both a generic name and variable data, is put at the top of the master document.

> SV DATE, August 30, 1982
>
> &DATE&

Define File. **.DF** followed by a file name identifies a file which will supply variable data. **.DF** followed by a file name and the word "CHANGE" tells MailMerge to instruct the operator to change a disk for the named file. **.DF** does not work alone; it works with **.RV**. Together, **.DF** and **.RV** cause MailMerge to print the master document until all the variable data requested have been inserted. The **.DF** command always precedes the **.RV** command because MailMerge must "see" a file before it can "read" the variables in that file.

Here are some examples of **.DF** commands which could be put at the top of a master document in column one before any **.RV** command appears:

.DF MAILIST.DTA

.DF B:CUSTOM.DTA

.DF NAMES.DTA CHANGE

NOTE: If you type the word CHANGE after the file named in a **.DF** command, you will see a message on the screen when you print. If you have made a mistake, an error message will appear, but the file will continue printing.

> •••Cannot change disk in drive D:, request ignored.

See Appendix B for details.

If you have not made a mistake, you will see:

> Insert diskette with file (name of your file); then press RETURN

HOW TO WRITE　　Follow these STEPS to write a .DF command:
A .DF COMMAND

　　　　　　　　　　STEP 1　Starting in column one

　　　　　　　　　　　　　　TYPE **.DF**

　　　　　　　　　　STEP 2　PRESS **SPACE**

　　　　　　　　　　STEP 3　TYPE *filename*

　　　　　　　　　　STEP 4　(OPTIONAL)

　　　　　　　　　　　　　　PRESS **SPACE**

　　　　　　　　　　　　　　TYPE **CHANGE**

　　　　　　　　　　　　　　| RETURN |

RULES FOR .DF　　• Always put **.DF** above **.RV** and above text.

　　　　　　　　　　• Do not use more than one **.DF** in a master
　　　　　　　　　　　document.

　　　　　　　　　　• Always enter a valid file name for a datafile.

| **.** | **R** | **V** |

Read Variables. **.RV** tells MailMerge to look at the datafile named in a preceding **.DF** command. The generic names that follow **.RV** name all the fields of the datafile. For instance, if the datafile contains specific account numbers, names, and street addresses, the **.RV** command would contain generic names for number, name, and address.

NOTE: The order of the specific information in the datafile must be the same as the order of the generic names in the **.RV** command. Also, all fields in a datafile must be named in the **.RV** command, even if they will not all be used in the text.

With **.DF** and **.RV** in a master document, MailMerge reads all the fields and recognizes generic names which are enclosed in ampersands (**&**) in the text.

Then it replaces them with the information you want from the datafile. In other words, MailMerge does the picking and choosing for you. It reads all the variables but only selects the ones you have asked for in the text.
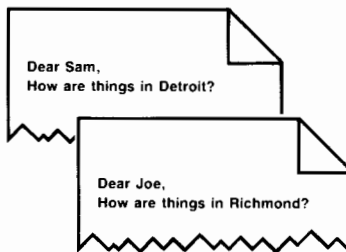
Using **.DF** and **.RV** to merge variable data into text is the easiest way to produce personalized letters from a mailing list.

The following illustration is a simple example of this use of **.DF** and **.RV**:

```
NAMES.DTA
1, Sam, Main St., Detroit
2, Joe, Broadway, Richmond
```

```
LETTER.TXT
L----!----!----!----!----R
.DF NAMES.DTA
.RV N, NAME, STREET, CITY
Dear &NAME&,
How are things in &CITY&?
.PA
.........................
```

```
Dear Sam,
How are things in Detroit?
```

```
Dear Joe,
How are things in Richmond?
```

HOW TO WRITE
A .RV COMMAND

Follow these STEPS to write a .RV cmmand:

STEP 1   Starting in column one

TYPE **.RV**

STEP 2   PRESS **SPACE**

STEP 3   TYPE generic names for all the fields in your datafile. Separate them with commas.

| RETURN |

The following example shows you a **.RV** command in two proper forms. The first command uses a comma and a space to separate the generic names. The second uses only commas.

.RV N. Name, Street, City

RV N,Name,Street,City

RULES FOR .RV

• Never use ampersands around generic names.

• Never put **.RV** before **.DF**.

• You may put other dot commands between **.RV** and **.DF**.

• **.RV** must come before any text which is to be merged with data read by the **.RV**.

• Always provide generic names for all the fields in a datafile even though you may not want to use all of them.

• A generic name may be no longer than 40 characters.

• A **.RV** command may be no longer than 240 characters.

- The list of generic names may be too long for one line of your screen. If you do not want to use the horizontal scroll feature of WordStar, use as many **.RV** commands as necessary to read the variables from one datafile.

The following example illustrates the preceding rule:

```
NAMES.DTA
1, Queen Elizabeth II, Buckingham Palace, Westminster, England
```

```
LETTER.TXT

L----!----!----!----!----!----!----!----!----!----!----!----!----!----!-----R

.DF NAMES.DTA
.RV RECORD-NUMBER, ROYAL-TITLE, PALATIAL-ESTATE
.RV CAPITALCITY, COUNTRY
```

- Never vary the order of the fields from the order followed in the datafile when you list the generic names after the **.RV**. If you do, MailMerge will insert data into the wrong places in your text.

For example, if a datafile looked like this:

```
Luis Sweeney, 66 Palm, "Lodi, CA", 95240
```

The **.RV** command must look like this:
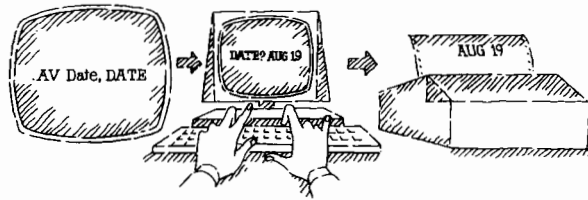
```
.RV NAME, ADDR1, ADDR2, ZIP
```

not like this:

```
.RV ZIP, ADDR2, ADDR1, NAME
```

. **A** **V**

Ask (for) Variables. **.AV** commands MailMerge to ask for variable data at printing time. If a **.AV** command is put into a master document, a prompt appears on the screen at printing time, and the printer pauses. Printing will not resume until an operator enters information. The **.AV** command contains a generic name. If MailMerge finds the same generic name enclosed in ampersands in the text, the information which the operator types will be inserted into the text.

The following illustration shows you how **.AV** commands work.

NOTE: If you use only **.AV** commands to merge data, you will print one document at a time. After a document is printed you must start MailMerge again from the WordStar Opening Menu.
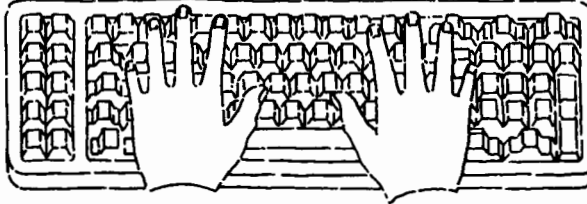
If however, **.DF** and **.RV** commands are used in the same master document, the request for variables will appear on the screen each time MailMerge reads a new record in the datafile. MailMerge will ask for variables until all the data from the datafile have been merged into the text.

You can write a simple **.AV** command with just a generic name. If you do, the generic name and a question mark appear on the screen at printing time. Look at the following example:

```
AV PHONENUMBER
```

This command in the master document will produce
this prompt on the screen at printing time:

```
P = Stop PRINT

PHONENUMBER?
```


You can also write more complex **.AV** commands. If
you add a comma and a digit, you can limit the
number of characters an operator can type in
response to the question on the screen. The cursor
stops after the operator types the maximum number
of characters.

This feature is a safeguard against mistakes. In the
following example, the number would prevent the
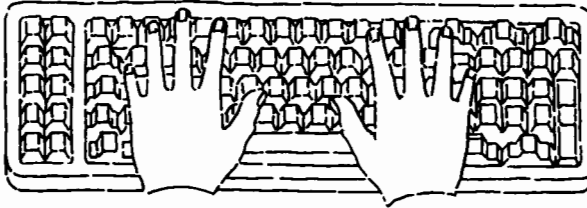operator from entering more than five characters for
a zip code:

```
AV ZIPCODE. 5
```

This command in the master document will produce this prompt on the screen:

```
P = Stop PRINT

ZIPCODE?
```

If the operator typed 654321, the screen would show this prompt:
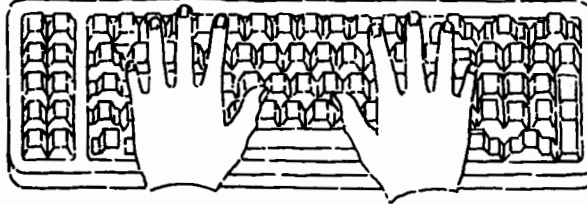
```
ZIPCODE? 65432 _
```

You can create a **.AV** command that will display a message as a prompt on the screen rather than just the generic name. The prompt is enclosed in quotation marks and is typed before the generic name in the **.AV** command. This feature is helpful when you want to give clear instructions to the operator who will enter data. A **.AV** command with a message prompt still requires a response from an operator before MailMerge will print or output to a file. Although the generic name is not seen on the screen, it is written in the **.AV** command after the comment. The operator's response will be inserted into the text at the place where the generic name is enclosed in ampersands.

```
.AV "CITY,STATE?",ADDR2
```

This command in the master document will produce
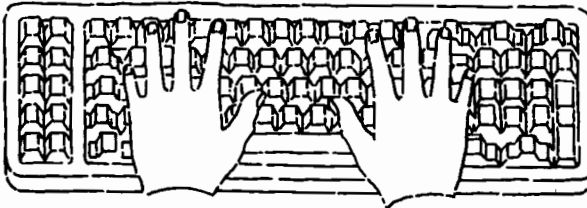the following prompt on the screen at printing time:

> CITY, STATE?

> AV "Enter name as: Last, First:", Name

This command in the master document will produce
the following prompt on the screen at printing time:

> Enter name as: Last, First:

HOW TO WRITE   Follow these STEPS to write a .AV command:
A .AV COMMAND

STEP 1   Starting in column one

TYPE **.AV**

STEP 2   PRESS **SPACE**

STEP 3   TYPE one generic name

OR

TYPE a prompt enclosed in single or
double quotation marks

AND

TYPE a comma and one generic name

STEP 4   (OPTIONAL)

TYPE a comma and a digit

RULES FOR .AV   • Do not use ampersands around variable names.

• A line beginning with **.AV** may be no longer than
240 characters.

• A generic name may be no longer than 40
characters.

• You may use any number of **.AV** commands.
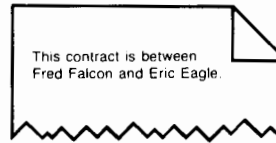
• You may use **.AV** commands anywhere in a file.

Set Variables. .SV tells MailMerge to insert variable
data throughout the master document wherever the
generic name appears enclosed in ampersands. The
.SV command includes the information *in the master
document*. MailMerge neither goes to a datafile nor
asks the operator for data, but simply looks at the
command itself.

The **.SV** command includes both the generic name for variable data and the information that will be substituted for the generic name. **.SV** is very useful when a piece of information appears many times in a document, because one edit will change every occurrence.

The following example shows you a use of **.SV**:

```
.SV PARTY1, Fred Falcon
.SV PARTY2, Eric Eagle
This contract is between
&PARTY1& and &PARTY2&.
```

```
This contract is between
Fred Falcon and Eric Eagle.
```

HOW TO WRITE A .SV COMMAND

Follow these STEPS to write a .SV command:

STEP 1   Starting in column one

    TYPE **.SV**

STEP 2   PRESS **SPACE**

STEP 3   TYPE one generic name and a comma

STEP 4   PRESS **SPACE**

STEP 5   TYPE variable data

3. Preparation

RULES FOR .SV

- Do not use ampersands around generic names.

- A **.SV** command may be no longer than 240 characters.

- A generic name may be no longer than 40 characters.

- You may use as many **.SV** commands as you like.

- **.SV** commands can appear anywhere in the master document.

DOT COMMAND FOR INSERTING FILES

File Insert. **.FI** commands MailMerge to insert a named file where the **.FI** appears, either at the end of a file or in the middle of text. When MailMerge joins one file to the end of another and you print, the results are called "chain printing." When MailMerge inserts one file inside of another, and you print, the results are called "nested printing." If you insert one file inside another, MailMerge will obey all the dot commands in the inserted file before returning to the original file.

If you want MailMerge to pause so you can change a disk, type the word CHANGE at the end of a **.FI** command.

The following examples show you **.FI** commands. Chapter 4 gives more sample uses of **.FI**.

.FI MAILLIST.DTA

.FI STANDARD.TXT

.FI B:COVER.LTR

.FI HEADING CHANGE

NOTE: If you type the word CHANGE after the file named in a **.FI** command, you will see a message on the screen when you print. If you have made a mistake, an error message will appear:

> * * *Cannot change disk in drive D:, request ignored.

See Appendix B for details.

If you have not made a mistake, you will see:

> Insert diskette with file (name of your file); then press RETURN

HOW TO WRITE A .FI COMMAND

Follow these STEPS to write a .FI command:

STEP 1   Move the cursor to the desired location in the file

STEP 2   Starting in column one

TYPE **.FI**

PRESS **SPACE**

STEP 3   TYPE the letter of the disk drive and a colon (:) if file to be inserted is not on the logged disk drive

STEP 4   TYPE file name of the file to be inserted

STEP 5   PRESS **SPACE**

TYPE **CHANGE** if file is on another disk

| RETURN |

3. Preparation

RULES FOR .FI

- There is no limit to the number of **.FI** commands which can be used in sequence for chaining files.

- No more than seven files can be inserted inside one another with **.FI** commands.

DOT COMMAND FOR MULTIPLE COPIES

Repeat Until the End of Datafile is Reached. .RP commands MailMerge to repeat the printing of a file if that file uses a datafile to supply variable data for merging.

There are two uses for **.RP**:

- You can use **.RP** for repeated printing. You insert a file which contains **.RP** and **.RV** commands into another file which contains a **.DF** command. **.RP** will cause repeated printing until all the data in the file have been read.

  If a number **(n)** follows **.RP**, MailMerge reads the datafile n times and prints all the documents n times.

- If a file contains **.DF** and **.RV**, **.RP** followed by a number will read the datafile n times and will print all the documents n times.

Chapter 4 explains the uses of **.RP** as they relate to command files and repeated printing. ⊂⟶ 4-21

HOW TO WRITE A .RP COMMAND

Follow these STEPS to write a .RP command:

STEP 1   Starting in column one

TYPE **.RP**

PRESS **SPACE**

STEP 2   (OPTIONAL)

TYPE any number

| RETURN |

RULES FOR .RP

- Put **.RP** near the beginning of a file and avoid using **.RP** at the end of a file. If you must use **.RP** at the end of a file, follow the command with a carriage return.

- **.RP** has no effect unless a datafile is in use.

- **.RP** should not be used unless a **.RV** is in the same file.

- **.RP 0** is the same as **.RP 1**. Both print the document once.

DOT COMMANDS FOR RE-FORMING TEXT AT PRINTING TIME

AUTOMATIC RE-FORMING

When MailMerge inserts variable data into a master document, it automatically re-forms paragraphs. The WordStar paragraph re-form command ^B works similarly. MailMerge looks at the paragraph into which the variable data will be inserted. The program inspects the margins, the line spacing, and the right edge of text to determine if it is justified or ragged right. Then MailMerge puts the data in place and forms lines of the appropriate length.

Here is an example of how MailMerge re-forms paragraphs which contain variable data.

This agreement is made and entered
into as of the &DAY& day of &MONTH&,
1982, between &PARTY1&, ("Employer")
and &PARTY2& ("Employee").

**This agreement is made and entered
into as of the thirteenth day of
November, 1982, between Galactica
Corporation ("Employer") and Polly
Polaris ("Employee").**

Notice that the sample paragraph contains four lines
on the screen but five lines when printed on paper.

CAUTION

When MailMerge inserts variable data into a master
document, page breaks may occur differently on
paper than they do on the screen. To prevent
awkward page breaks, use the WordStar dot
command **.CP** to keep certain lines of text on the
same page.

The process of adjusting the length of lines of text
with variable data is called **print time line forming.**
Print time line forming is an automatic feature of
MailMerge. To turn off this automatic feature and to
adjust justification at printing time, use the dot
commands .PF, .OJ, and .IJ which are described
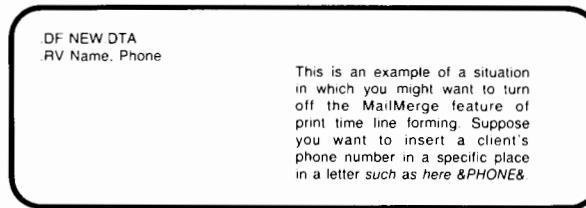here and on the following pages.

There are no specific procedures or rules for the use
of these dot commands because their use depends
upon your particular formatting requirements. Just
remember to follow the general rules for writing dot
commands.

```
. P F
```

Print Time Line Forming. **.PF** controls the printing of lines of text which include variable data. **.PF** is followed by one space and either DIS, OFF, or ON. Put these dot commands in column one above the lines of text you want to re-form at printing time.
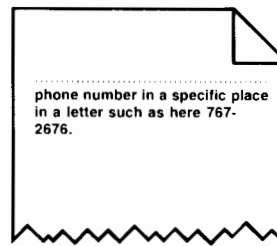
NOTE: DIS is an abbreviation for "discretion" and indicates that a command will go into effect at the discretion of MailMerge. For example, when you use **.PF DIS**, MailMerge will start print time line forming when it sees a generic name in your text and will stop at a hard carriage return. The DIS (discretionary situation) is the default or standard situation.

For most documents, you will allow automatic print time line forming. In some cases, however, you may want to suppress this feature. For example, suppose you want to print client phone numbers on the right edge of your text and do not want MailMerge to re-form the paragraph and split the number at the hyphen. Look at the following example:

```
.DF NEW.DTA
.RV Name. Phone
                      This is an example of a situation
                      in which you might want to turn
                      off the MailMerge feature of
                      print time line forming. Suppose
                      you want to insert a client's
                      phone number in a specific place
                      in a letter such as here &PHONE&.
```
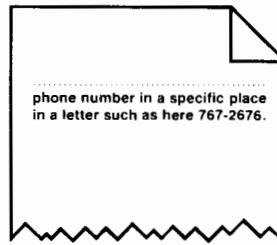
If print time line forming is on, the telephone number will print on two lines.

```
...................................
phone number in a specific place
in a letter such as here 767-
2676.
```

If print time line forming is off (.PF OFF), the telephone number will print on one line.

```
............................................
phone number in a specific place
in a letter such as here 767-2676.
```

Turning off print time line forming is useful when you want to print data, for example a mailing list, in the text of another document. In this case, the variable data will extend beyond the margins of the text as in the following example:

```
.OP
.DF CUSTOMER.DTA
.RV N. NAME, TITLE, ADDRESS. CITY-STATE, ZIP, PRODUCT
.PF OFF
This might be the text of a document into which you want to insert
the following variable data:

&NAME&                 &ADDRESS&               &CITY-STATE&
```

```
This might be the text of a document into which you want to insert
the following variable data:

Patrick Pollux          33 Galaxy Circle          Century City, CA
```

If you do not use **.PF OFF** as in the previous example, the printed result might look like this:

.PF DIS is the default or standard situation in which MailMerge automatically forms lines within the set margins and re-forms paragraphs after new data is inserted.

.PF OFF stops the automatic feature so that variable data which is inserted into text will change the length of lines or the form of a paragraph.

.PF ON turns on print time line forming so that lines of text which contain variable data will be reformed automatically.

Output Justification. When print time line forming is operating, **.OJ** determines whether the right margin of the text being printed (output) is ragged or justified. **.OJ** is followed by DIS, ON, or OFF and only works when print time line forming is on.

.OJ DIS is the default or standard situation in which text that contains variable data is put into the same form as the text which was edited. **.OJ DIS** will re-form text that includes variable data into text with either a ragged right or a justified margin.

.OJ ON forms lines which are justified when print time line forming is on.

.OJ OFF forms ragged right lines when print time line forming is on.

Input Justification. When print time line forming is operating, **.IJ** determines whether the right margin of the text which has been edited (input) is ragged or justified. **.IJ** is followed by DIS, ON, or OFF and only works when print time line forming is on.

.IJ DIS is the default or standard situation in which MailMerge interprets the edited text just as it has been entered. The program determines if the input (edited text) has a ragged right or a justified margin.

.IJ ON tells MailMerge to interpret the input (the edited text) as justified.

.IJ OFF tells MailMerge the input text should have a ragged right margin.

DOT COMMANDS FOR ONSCREEN DISPLAYS WHEN PRINTING

Two dot commands, **.CS** and **.DM**, affect what the operator sees on the screen while MailMerge is printing. These commands are particularly useful when you need to instruct the person printing with MailMerge. They are also helpful when you have many **.AV** commands which fill the screen at printing time, and you want to clear the screen for easier reading.
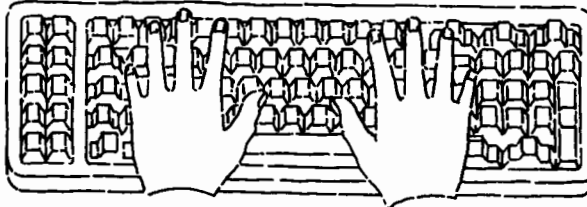
Display Message. .DM tells MailMerge to show text on the screen when it prints the master document. You can display as many messages as you like. Each **.DM** will cause a line of text to appear below a preceding message. The display scrolls up when the screen is full.

With this command, you can tell what document is being printed, making it unnecessary to look at the printer. MailMerge will insert variable data into the message if it recognizes generic names enclosed in ampersands. For example, you can see what form letter you are printing by using a **.DM** command as in the following example:

```
.DM Now printing letter to &NAME&
```

This command in the master document will display the following message on the screen at printing time:

```
P = Stop PRINT

Now printing letter to Dee Skies
```

Here are other examples of **.DM** commands:

```
.DM Now printing Chapter 7

.DM Load envelope in printer, press P

.DM Insert next disk in drive B
```

HOW TO WRITE
A .DM COMMAND

Follow these STEPS to write a .DM command:

STEP 1   Starting in column one

TYPE **.DM**

STEP 2   PRESS **SPACE**

STEP 3   TYPE your message

RULES FOR .DM

• A **.DM** command may be no longer than 240 characters.

• Insert a generic name enclosed in ampersands in the command when you want to insert data into the message.

Clear Screen. Put **.CS** in the master document after **.AV** or **.DM** commands to make it easier to read the screen at printing time. **.CS** clears the screen when MailMerge is printing. Like **.DM**, **.CS** can also be followed by a message:

```
CS
```

OR

```
CS Enter data when questions appear
```

HOW TO WRITE
A .CS COMMAND

Follow these STEPS to write a .CS command:

STEP 1   Starting in column one

TYPE .CS

STEP 2   (OPTIONAL)

PRESS **SPACE** and

TYPE a message

| RETURN |

USING DATAFILES

Information stored in a datafile must conform to a consistent pattern. The order of fields, the number of fields, and the correct use of commas, carriage returns, and spacing are extremely important in datafiles. You must organize your information or it will not merge properly into the master document.

Consider this example. A mailing list looks like this on paper:

1 Dee Skies   2 Flash Gordon   3 Polly Polaris
77Sunset Strip   664 Etoile Court
Hollywood,CA   Outer Space   Jacksonville,FL

Notice that Flash Gordon has no street address. In a
mailing list on paper, there is a blank space where
the street would be. In a datafile, the missing street
address is called an empty field.

A datafile containing your list would look like this
on the screen:

```
1. Dee Skies, 77 Sunset Strip, "Hollywood, CA"
2. Flash Gordon,, Outer Space
3. Polly Polaris, 664 Etoile Court, "Jacksonville, FL"
```

EMPTY FIELDS Notice that the empty field, the missing street
address, is marked by an extra comma. Because
MailMerge "reads" fields by recognizing commas, an
empty field must be enclosed within commas just as
a field that contains data would be. Without the
extra comma for the empty field, MailMerge would
use the data in the next field as the street address.

Notice that the order of the fields does not change.
The number is first, the name is second, street
address is third, city/state is fourth. Another datafile
might use a different order, perhaps putting names in
the last field; but the order within a single datafile
must be consistent.

The fields are separated (delimited) by commas, and
records are separated by carriage returns. Notice the
last field in the first and third records of the
example. Because these fields themselves contain
commas, the entire field is enclosed in quotation
marks. Though we say that MailMerge "reads" data
from a datafile, the program really just recognizes
commas and carriage returns.

If the variable data in a field contains a comma (for
example, the city and state "Hollywood, CA"), you
must put double quotation marks around that
variable data *before* you use a comma to separate
fields. "Count your commas" is a good rule for
datafiles. If one record contains an incorrect number
of commas to separate fields, data will be put in the
wrong places in a master document.

You can store information in datafiles either with:

- MicroPro data and calc products

OR

- WordStar in non-document mode

You can use MicroPro's DataStar program to design a form, enter information (data) on your form, and store that data on a record in a datafile. For example, DataStar will take information such as billing address, quantity, and cost from a product order form and put it into a datafile. DataStar will separate the fields with commas and end each record with a carriage return. If you then create a master document for a letter that asks for data from that file, MailMerge merges that data into the text of the letter.

NOTE: A common extension to the file name of a datafile is .DTA. MailMerge will recognize the .DTA datafiles from other MicroPro products, such as ReportStar and CalcStar, and you can then use that data in WordStar document files.

If you use WordStar to create a datafile, you must use non-document mode. In non-document mode, word wrap does not function, and tabs are in a fixed position. You do not re-form paragraphs when you create a datafile. Word wrap and paragraph re-form insert soft carriage returns into a file. MailMerge does not distinguish between soft and hard carriage returns. And a hard carriage return signifies the end of a record to MailMerge.

Because of the horizontal scroll feature of WordStar, a record in a datafile can extend beyond the set margins. The practical limit, however, is 240 columns.

3. Preparation

HOW TO CREATE   Follow these STEPS to create a datafile:
A DATAFILE

STEP 1   At the WordStar Opening Menu

TYPE **N**

SEE Name of file to edit?

STEP 2   TYPE *filename*

[RETURN]

STEP 3   Starting in column one

TYPE first item of variable data

STEP 4   TYPE a comma

(OPTIONAL) PRESS **SPACE**

STEP 5   TYPE variable data in next field

OR

TYPE a comma if you lack data for that field

REPEAT STEPS 4 and 5 until you complete one record (which may be longer than one line visible on your screen)

[RETURN]

REPEAT STEPS 3 through 5 until you have typed all your data

STEP 6   Save your file

Study this example datafile called CUSTOMER.DTA:

```
CUSTOMER.DTA
1,Dee Skies,Astrologer,77 Sunset Strip,"Hollywood, CA",90025,WordStar
2,Flash Gordon,,99 Nova Avenue,"Dallas, TX",75231,DataStar
3,Patrick Pollux,,33 Galaxy Circle,"Century City, CA",90068,DataStar
4,Sky King,Rancher,,"Missoula, MT",59802, WordStar
5,Polly Polaris,SpaceCaseworker,664 Etoile Court,"Jacksonville, FL",33152,WordStar
```

RULES FOR
DATAFILES

- Do not create datafiles with WordStar in document mode.

- Use .DTA as the extension to the file name to identify it as a datafile.

- Do not create records in lines longer than 240 characters.

- Separate fields with commas.

- End every record with RETURN.

▽ CAUTION

You may use a carriage return instead of a comma to separate fields if, for instance, a record forms a very long line on the screen. However, it is not recommended. DataStar and some other programs recognize only commas to separate fields and only carriage returns to separate records. You must follow the same format in creating a datafile with WordStar in non-document mode. Otherwise, you will not be able to use that datafile with other programs.

▽ CAUTION

Never use RETURN in the middle of a field.

- If a field contains a comma or is preceded or followed by a space, surround the field with quotation marks. Make sure that the commas which separate fields are *outside* of the quotation marks.

- Never omit a field. If you have no data, create an empty field using an optional space and a required comma.

▽ CAUTION

MailMerge will not work if the last field in the last record of a datafile is empty.

- Never vary the order of fields in a datafile.

3. Preparation

4. Printing

...starting...interrupting...
chain printing...nested printing...
command files...copies...

Printing with MailMerge is as simple as typing **M** at
the WordStar Opening Menu. But your choice of dot
commands will produce a variety of sophisticated
results. This chapter explains the following:

- printing
- chained printing
- nested printing
- combined task printing
- duplicate printing
- repeated printing

You can not edit while you print with MailMerge.

HOW TO START

Follow these STEPS to print a document file which contains MailMerge dot commands:

STEP 1   At the WordStar Opening Menu

           TYPE **M**

STEP 2   You see the prompt

```
Name of file to MailMerge?
```

TYPE the name of the file which contains MailMerge dot commands

STEP 3   Ready the printer

STEP 4   PRESS **ESC**ape and print

           OR

    | RETURN | to print with options

You see the prompts

```
not editing

Name of file to MailMerge? letter
For default press RETURN for each question:
    Disk file output (Y/N):
    Start at page number (RETURN for beginning)?
    Stop after page number (RETURN for end)?
    Number of copies (RETURN for 1)?
    Use form feeds (Y/N):
    Suppress page formatting (Y/N):
    Pause for paper change between pages (Y/N):
Ready printer, press RETURN:
```

NOTE: Your response to the fourth question determines the number of duplicate copies to be printed.

STEP 5   You see the prompts

MailMerge printing *(name of file)* not editing

    P = Stop PRINT

NOTE: Printing with options in MailMerge is very similar to printing with options in WordStar. Consult your WordStar Reference Manual for an explanation of these options.

HOW TO STOP

While MailMerge prints, you see **P** = **Stop PRINT** highlighted on your screen.

Follow these STEPS to stop printing:

STEP 1   TYPE **P**

STEP 2   You see the prompt

"Y" to abandon print, "N" to resume, "U to hold

PRESS **Y**

Typing **P** to stop printing will not always work. If your document contains a **.AV** command and the cursor is resting after a question on the screen, "P" will be interpreted as data. See the following instructions.

4. Printing

IF MAILMERGE IS WAITING FOR DATA FROM AN OPERATOR

Follow these STEPS if there is a question on the screen requesting data:

STEP 1   You see the cursor positioned after a screen prompt

PRESS ^U

STEP 2   You see the prompt

> ···INTERRUPTED···Press ESCAPE Key

PRESS **ESC**ape and rapidly TYPE **P**

STEP 3   You see the prompt

> ··Y·· to abandon print, ··N·· to resume. ·U to hold

TYPE **Y**

HOW TO INTERRUPT

Perhaps you want to change the ribbon or insert envelopes into the printer. You can command MailMerge to interrupt printing at any one of three stages:

- Before you save the file which you will print

- After you save the file but before you print

- While you are printing the file you saved

BEFORE SAVING THE FILE AND PRINTING

Follow these STEPS to interrupt before saving the file and printing:

STEP 1   Open a file

STEP 2   At the top of the file, before the dot commands

PRESS ˆP

TYPE **C**

You see on the screen: ˆC

STEP 3   Enter dot commands and text

STEP 4   Save the file

STEP 5   At the Opening Menu, print with MailMerge

MailMerge will print. When it encounters the ˆC in your file, MailMerge will stop printing, and you will see the WordStar Opening Menu. On it, you will see highlighted:

> P Continue PRINT

AFTER SAVING THE FILE AND BEFORE PRINTING

Follow these STEPS to interrupt after saving the file and before printing:

STEP 1   PRESS **M**

STEP 2   You see the prompt

> Name of file to MailMerge?

4. Printing

TYPE *filename*

PRESS [RETURN] 7 times

STEP 3   You see the prompt

> Pause for paper change between pages (Y/N):

TYPE **Y**

[RETURN]

DURING PRINTING   Follow these STEPS to interrupt during printing:

STEP 1   PRESS **P**

STEP 2   You see the prompt

> "Y" to abandon print. "N" to resume. êU to hold

PRESS ^**U**

You see the prompt

> ···INTERRUPTED···Press ESCAPE Key

STEP 3   PRESS **ESC**ape

You see the WordStar Opening Menu. On it, you will see highlighted

> P Continue PRINT

CHAIN PRINTING

With chain printing, you can join many files—files holding chapters of a book, for example. If you put a **.FI** command at the end of each file and then print the first file, MailMerge automatically links the other files in the chain.

```
B CHAP 1

This is the first chapter
FI CHAP 2
```

```
B CHAP 2

This is the second chapter
FI A CHAP.3
```

```
A CHAP 3

This is the third chapter
```

By printing CHAP.1 with MailMerge, you will get this result:

```
This is the first chapter
This is the second chapter
This is the third chapter.
```

4. Printing

NOTE: Chapters can be put on disks in different
drives as in the previous example.

**HOW TO
PRODUCE CHAIN
PRINTING**

Follow these STEPS to produce chain printing:

STEP 1   Open a file

STEP 2   TYPE the text

STEP 3   Move the cursor to end of the file

STEP 4   Starting in column one

(OPTIONAL) TYPE **.PA** if you want the
next file to start on a new page

`RETURN`

STEP 5   TYPE **.FI**

STEP 6   If the file to be chained is not located on
the logged disk drive,

TYPE the letter naming the disk drive and
a colon.

STEP 7   TYPE the name of a file to be next in the chain

STEP 8   Save the file

REPEAT STEPS 1 through 8

STEP 9   At the Opening Menu, print with MailMerge

OR

Use a command file to produce chain printing. ⊏⟶ 4-12

NESTED PRINTING

Nested printing is a valuable tool for including a standard paragraph in many different documents. When you want to put an entire file inside another and another inside of *that* one and still another inside of *that* one (up to seven times), use nested printing.

Nesting can also mean putting many files inside of one file. There is no limit to the number of files that can be nested this way.

HOW TO PRODUCE NESTED PRINTING

Follow these STEPS to produce nested printing:

STEP 1   Open a file

STEP 2   TYPE the text

STEP 3   Move the cursor to the place where you want to insert another file

STEP 4   Starting in column one

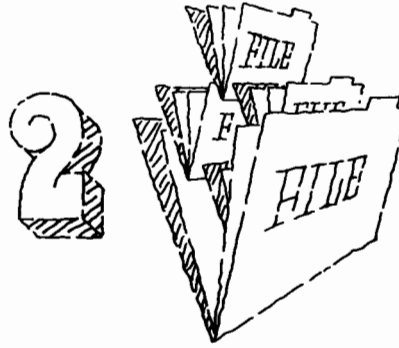   TYPE **.FI**

STEP 5   PRESS **SPACE**

STEP 6   If the file to be inserted is not located on the logged disk drive,

              TYPE the letter naming the disk drive and a colon

STEP 7   TYPE the name of the file to be inserted

              | RETURN |

STEP 8   Continue with the text

STEP 9   Save the file, then either

STEP 10   Open file named in STEP 7

              REPEAT STEPS 2 through 9 no more
              than six times

                     OR

STEP 11   REPEAT STEPS 1 through 9 any number
              of times

STEP 12   Print the file opened in STEP 1 with
              MailMerge

RULES FOR NESTED PRINTING

- You can nest as many as seven files inside one another (see illustration #1).

- You can nest as many files as you like in one file (see illustration #2).

COMBINED TASK PRINTING WITH COMMAND FILES

With MailMerge, you can combine several printing tasks by creating one special file called a command file. This command file will find the files you specify and print them in succession. For example, when you want to print letters and envelopes, you only need to print once.

A command file is a document file with little or no text in it and no specific form. It can be as simple as a series of **.FI** commands to chain files, which could be, for example, the chapters of a book. Or a command file can contain a complex series of commands that print many master document files, each of which uses a datafile. However you design a command file, when you print that file with MailMerge, all the dot commands will go into action.

**MAILING LIST
TASKS**

The example which follows illustrates what happens
when a command file for printing letters and
matching envelopes is printed with MailMerge.

```
B:COMMAND

L----!----!----!----!----!----!----!----!----!----!----!----!-----R
.DM Print letters, then envelopes
.AV "Enter name of letter file", LETTER
.AV "Enter name of datafile", DATAFILE
.FI &LETTER&
.FI ENVLOPES
```

MailMerge displays these messages on the screen, and
the operator types the following responses, pressing
RETURN after each response.

```
Print letters, then envelopes
Enter name of letter file: FORM.LTR
Enter name of datafile: CUSTOMER.DTA
```
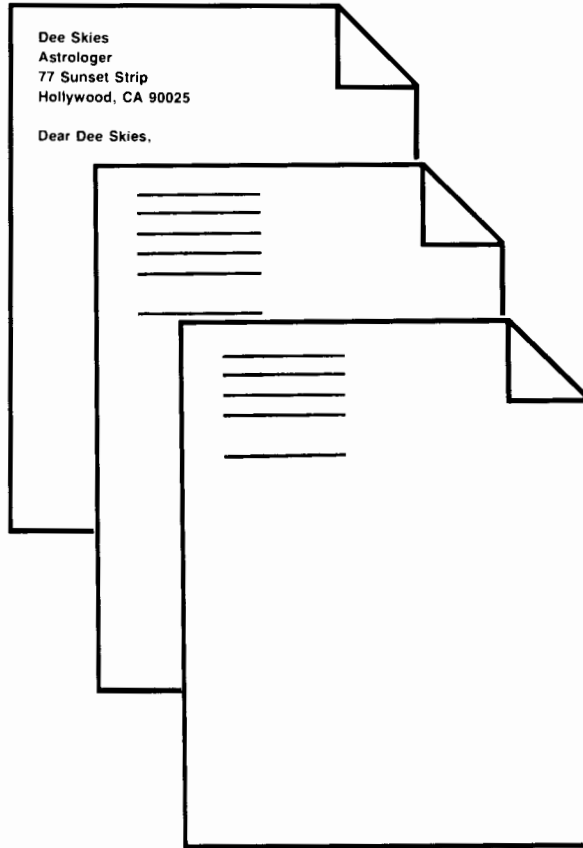
MailMerge finds the file called FORM.LTR.

```
B:FORM.LTR

L----!----!----!----!----!----!----!----!----!----!----!----!----!-----R
.DF &DATAFILE&
.RV N,NAME,TITLE,STREET,LOCALE,ZIP,PRODUCT
&NAME&
&TITLE/O&
&STREET/O&
&LOCALE& &ZIP&
Dear &NAME&,




 PA
```

MailMerge finds the datafile called CUSTOMER.DTA.

```
        B:CUSTOMER.DTA

1,Dee Skies,Astrologer,77 Sunset Strip,"Hollywood, CA",90025,WordStar
2,Flash Gordon....
```

MailMerge inserts the data into the letters and prints the letters. (MailMerge will pause for a paper change if the operator prints with options and requests a pause.)

Dee Skies
Astrologer
77 Sunset Strip
Hollywood, CA 90025

Dear Dee Skies,

MailMerge finds the file called ENVLOPES.

```
B:ENVLOPES

L----!----!----!----!----!----!----!----!----!----!----!----!----!-----R
 `C
 .PL 25
 .MT 15
 .MB 0
 .DF &DATAFILE&
 .RV N,NAME,TITLE,STREET,LOCALE,ZIP,PRODUCT

&NAME&
&STREET&
&LOCALE& &ZIP&
.PA
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
```

MailMerge finds the datafile called CUSTOMER.DTA.

```
       B:CUSTOMER.DTA

1,Dee Skies,Astrologer,77 Sunset Strip,"Hollywood, CA",90025,WordStar
2,Flash Gordon,...
```

MailMerge inserts the data and prints the first
envelope.

```
Galactica Corporation                        ┌──────────┐
508 Halibut Ave.                             │          │
Ether City, CA 94706                         │          │
                                             └──────────┘


                          Dee Skies
                          77 Sunset Strip
                          Hollywood, CA 90025
```

MailMerge pauses for the operator to put the next blank envelope in the printer and then continues to print and to pause until envelopes for every customer have been printed.

CHAIN PRINTING

You can use a command file to chain files together. Rather than putting **.FI** commands at the end of each file, make a command file with several **.FI** commands. When you give MailMerge the name of your command file, it prints all the files in succession.

Look at the following example. If you print the command file called B:BOOK.TXT, Chapters 1, 2, and 3 will automatically be printed.

```
B: BOOK.TXT

.FI CHAPTER1.TXT
.FI CHAPTER2.TXT
.FI CHAPTER3.TXT
```

NOTE: You can even use a command file to print a book that is large enough to fill several disks. Type the word CHANGE at the end of the **.FI** command if the file named is on another disk. Look at the following example. Chapter 3 is not on the same disk as Chapters 1 and 2.

```
B: BOOK.TXT

.FI CHAPTER1.TXT
.FI CHAPTER2.TXT
.FI CHAPTER3.TXT CHANGE
```

4. Printing

**ASK FOR
VARIABLES**

A command file is useful when printing form letters that ask the operator to insert variables. For example, perhaps you send out monthly bills that require an operator to enter the current date. If the **.AV** command for the date is put in the master document, the operator must type the date for every bill printed. However, if the **.AV** command is put in a command file and the generic name is enclosed in ampersands in the master document, the operator need only type the date once, and it will appear on every bill.

The following example shows a command file for printing monthly bills. If the command file were printed with MailMerge, a message would appear telling the operator that monthly bills were being printed. Then a message requesting a date would appear. After the operator typed the date, MailMerge would print monthly bills with the correct date for all the names in the datafile called CUSTOMER.DTA.

```
B:COMMAND.BIL

DM "Printing monthly bills"
AV "Enter today's date:" DATE
FI BILL
```

```
B:BILL

DF NEW CUST.DTA
RV NAME, ADDRESS, AMOUNT
&DATE&
TO: &NAME&
    &ADDRESS&

Your bill this month is $&AMOUNT&
```

By using a command file, you can print a letter using different datafiles at different times. This command file could be useful, for example, when you have a mailing list composed of several files or even several disks.
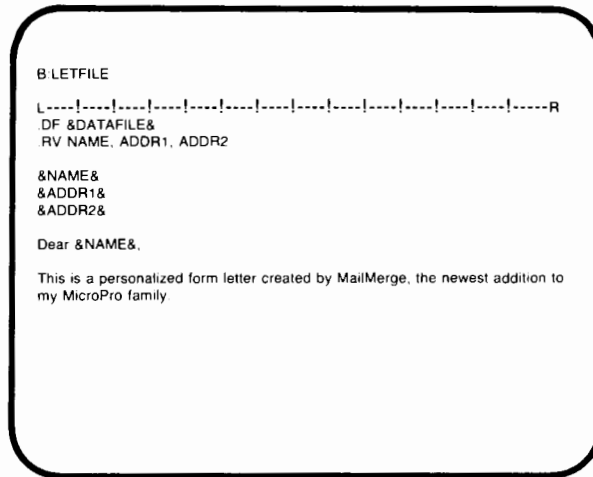
Also, a command file could contain **.AV** commands which ask for the names of a master document file and of a datafile. The master document file would contain **.DF** and **.RV** commands. Instead of containing specific file names, the **.AV**, **.FI**, and **.DF** commands would use variable names for the type of file requested.

The following example illustrates this use of the command file. (Refer also to the example in the section on command files and mailing list tasks in this chapter.) ⊂⟶ 4-13

When printed with MailMerge, the command file in this example would first display a message on the screen telling the operator that form letters were being printed. Then prompts requesting the names of a letter file and a corresponding datafile would be displayed. After the operator typed the responses, MailMerge would print the form letter. When it encountered .DF &DATAFILE& in the form letter, MailMerge would go to the datafile named by the operator, read the data, insert it into the master document, and print versions of the form letter. The operator could then print the same command file again but name a different datafile, and MailMerge would print another series of form letters.

```
B:COMMAND.LET

L----!----!----!----!----!----!----!----!----!----!----!----!----!----!-----R
.DM Print form letters
.AV''Enter file name of letter to print:'', LETFILE
.AV ''Enter file name of datafile:'', DATAFILE
.FI &LETFILE&
```

```
B:LETFILE

L----!----!----!----!----!----!----!----!----!----!----!----!----!----!-----R
.DF &DATAFILE&
.RV NAME, ADDR1, ADDR2

&NAME&
&ADDR1&
&ADDR2&

Dear &NAME&,

This is a personalized form letter created by MailMerge, the newest addition to
my MicroPro family
```

MAKING COPIES

There are three kinds of copies in MailMerge:

- Duplicate copies. MailMerge can produce many
  copies of the same document just as a copy
  machine can.

- Repeated printing. This is the "form letter"
  concept. MailMerge will print a master document
  repeatedly, changing data in each copy.

- Duplicate copies of documents that are the result
  of repeated printing. MailMerge can combine the
  two types of printing listed above to produce
  many copies of a form letter. Or it can produce
  another document in several versions.

DUPLICATES   Before you print, follow these STEPS to print
                    duplicate copies of a document:

STEP 1   Open the file you want to print

STEP 2   Starting in column one at the beginning of
         the file

         TYPE **.PN 1**

                   AND

         TYPE **.RPn** (n is number of copies
         desired)

At the start of printing, follow these STEPS to
produce duplicate copies:

STEP 1 $\boxed{\text{RETURN}}$ 4 times

STEP 2   You see the prompt

Number of copies?

         $\boxed{\text{RETURN}}$ for one copy

                   OR

         TYPE any number

STEP 3 $\boxed{\text{RETURN}}$

STEP 4   PRESS **ESC**ape

4. Printing

REPEATED   Follow these STEPS to produce repeated printing:
PRINTING

STEP 1   Create a master document that includes
          .DF and **.RV** commands

STEP 2   Create a corresponding datafile

STEP 3   Print the master document with MailMerge

                    OR

STEP 1   Create a master document that includes
          .RV and **.RP** commands

STEP 2   Create a datafile

STEP 3   Create a command file that contains a **.DF**
          command that names the datafile in STEP
          2 and a **.FI** command that names the
          master document file in STEP 1.

Appendix A
Program Specifications

WordStar and its options, MailMerge, and SpellStar operate only if the following specifications are met. Most WordStar specifications apply also to the options. Any special requirements are noted below. For information regarding specific versions of WordStar and its options, see your dealer.

WordStar

OPERATING SYSTEM

CP/M (version 2.0 or higher)
CP/M-86
MP/M
MS-DOS
PC-DOS

CPU MEMORY

For 8-bit microcomputers:
    56K of memory (RAM) or
    50K of program memory

For 16-bit microcomputers:
    64K of memory (RAM)
    except CP/M-86: 80K (RAM)

VIDEO TERMINAL

WordStar requires an addressable cursor or byte-addressable, memory-mapped video. Minimum screen size is 16 lines by 64 characters. Maximum screen size is 57 lines by 120 characters.

PRINTER

WordStar can take advantage of most of your printer's capabilities, whether letter or draft quality.

DISK STORAGE

WordStar can operate with one drive containing at least 120K. Use 5 1/4" or 8" disks, depending on your hardware. For convenience, two floppy disk drives are recommended.

MAXIMUM FILE SIZE

8 megabytes on CP/M, CP/M-86, and MP/M.
Unlimited on MS-DOS and PC-DOS.

SpellStar

DISK STORAGE MicroPro recommends that you run SpellStar with two floppy disks of at least 128K each, although you can check a very small document with a small dictionary on one disk of at least 128K.

Appendix B
MailMerge Error and Warning Messages

MailMerge has a number of error and warning messages which can appear when you print. An error message is always displayed for an invalid dot command; other conditions, such as a file not found, will produce warnings. Although printing proceeds after the error message or warning, the printout may be incomplete or incorrect.

> Can't edit a file while MailMerging—Finish or abandon MailMerge before editing

If you interrupt printing with MailMerge, you will see the WordStar Opening Menu on the screen with **"P Continue Print"** highlighted. If you press **D** to open a file you will see the warning message above.

> • • • Invalid Dot Command Ignored:

An incorrect dot command is displayed on the next line. In some cases, a specific error message accompanies this message.

> • • • Insert diskette with file " ":filename.typ then press RETURN

This is not an error message but a request to insert the disk containing the specified file into the disk drive indicated before the file name. This request results from processing a .DF or .Fl command containing the word "CHANGE" (or anything beginning with "CH") after the file name.

```
*** Cannot change disk in drive D:, request ignored
```

The disk cannot be removed because MailMerge has
found a .DF or .FI command with the word
"CHANGE" after the file name and the disk drive
specified in the file name (or the logged drive if no
specific drive was specified) contains a file which
MailMerge is using.

To avoid this error, keep WSMSGS.OVR,
WSOVLY1.OVR, the master document being printed,
the disk output file (if in use), and all datafiles and
inserted document files used by the master document
(but not on disks to be changed) on the logged drive.
Use drive B (in a two-drive system) for CHANGE
files, using only one CHANGE file at a time.

After the error message is displayed, MailMerge will
still attempt to find the file, even if the correct disk
has already been inserted. If the file is not found, the
next message appears.

```
*** File D:filename.typ Not Found
```

If the file specified in a .FI or .DF command is not
on the specified drive nor on the logged drive (if no
drive was specified in the command), MailMerge will
look further (see next message). Then, if the file is
not found, MailMerge will proceed without it. For a
.FI command, printing will continue with the line
after the .FI command; for a .DF command, printing
will continue with no datafile, in which case a further
message will appear when a .RV command is
encountered.

```
*** But found, and will use, D:filename.typ
```

If no file is found (see preceding message),
MailMerge looks on the logged drive and on drive A

```
MAILINV.DTA

Ms .Lydia Esther,Womack.8993 Cherry Ave.,San Leandro,CA,94532
Ms..Annette L .,Robinson.1322 Blue Ridge Dr.,Dallas,TX.75277
Mr..Roland M.,Robinson,1745 Navajoe Rd.,San Francisco,CA.94720
Mr .James Peter,Livingston,3354 Main Street,San Rafael,CA.94902
Ms .Ester,Williams,724 West Broadway,Pueblo,CO.81293
Dr .Carl C.,Chester,1808 Oak Hill Dr.,Buffalo,NY,14251
Mr..Gerald R.,Franklin,87 Willow Ave.,Gunnison,CO.81539
Mr .Jeffrey M..Jefferies,622 Virginia Hills,Denver,CO.80288
```

Computer
Museum

Four separate document files are created, using the
state abbreviations as file names, i.e., CA, CO, TX,
NY. A paragraph, in this case, the address of a
regional dealer, is put in each file. A .FI (file insert)
with &STATE& as the generic name is placed in the
master document where the dealer address is to go:

```
.FI &STATE&
```

That's it.

When MailMerge is run, the state from the datafile
record is inserted in place of the generic name. Then,
as it is a .FI command, the file with the
corresponding state name is inserted into that place.

Here are the separate files created:

```
(FILE CA)
Cosmic Creations
1980 Main St.
San Rafael, CA 94903
```

```
(FILE CO)
Electronic Ecstasy
3218 Collins Ave.
Denver, CO 80202
```

```
(FILE NY)
Global Gizmos
36477 N.W. First St.
New York, NY 10168
```

```
(FILE TX)
Futuristic Funthings
Five-fifty 55th St.
Dallas, TX 75240
```

Here is the master document:

```
OP
DF MAILINV.DTA
RV TITLE,FIRST,LAST,STREET,CITY,STATE,ZIP

&TITLE& &FIRST& &LAST&
&STREET&
&CITY&, &STATE& &ZIP&

Dear &TITLE& &LAST&,

Thank you for your interest in Galactica products. The enclosed flyer should
introduce you to the advantages that Galactica toys offer.

If you have any questions you may contact the dealer in your area:
.FI &STATE&

If I can be of any further service to you, please do not hesitate to call.

Sincerely,


Jay Salesman
Galactica
.PA
...............................................................................
```

Sometimes you can ignore this warning. If, for example, you are printing mailing labels which read multiple "records" for each printout, the above message may appear. For instance, a document that prints 3-up address labels would read three name and address records (typically with three .RV's) on each repetition, then print the three labels. This document would get the above warning at the end, unless the number of records in the datafile happened to be a multiple of three. Then, the warning may be disregarded. The one or two labels for which no data is present would not print, since .RV automatically supplies null values for the absent data.

Appendix C
MailMerge Applications

1. Creating a Mailing List Datafile from an Existing Datafile

MailMerge can simplify your mailing tasks by creating a mailing list datafile. Suppose you want MailMerge to produce an address list from a comprehensive datafile created by DataStar. There is no need to design a new form for customers' names and addresses. The trick is to use a MailMerge command file to extract names and addresses from an existing invoice file, in this case, INVOICE.DTA. This command file contains dot commands and generic names on one line with a comma separating each field of the record. You do not print the command file but request an output file when you run MailMerge. The output file is a new datafile which you can open and edit in WordStar's non-document mode or use immediately for mailing list tasks.

The following example illustrates how to create a new datafile from this existing datafile called INVOICE.DTA:

```
    B:INVOICE.DTA
02/24/82,7,Ms.,Lydia Esther,Womack,8993 Cherry Ave.,San Leandro,CA,94532
415,899-3400,12.89,1.98,14.87
02/16/82,5,Ms.,Annette L.,Robinson,1322 Blue Ridge Dr.,San Diego,CA,98443
714,399-5899,12.34,5.99,18.33
02/25/82,8,Mr.,Gerald R.,Franklin,87 Willow Ave.,Gunnison,CO,81539
303,390-4879,33.67,33.67,67.34
02/03/82,1,Mr.,Jeffrey M.,Jefferies,622 Virginia Hills,Denver,CO,80288
303,372-9999,23.45,55.44,78.89
02/17/82,6,Mr.,Roland M.,Robinson,1745 Navajoe Rd.,San Francisco,CA,94720
415,372-6590,234.77,89.45,324.22
02/13/82,4,Mr.,James Peter,Livingston,3354 Main Street,San Rafael,CA,94902
415,893-5599,454.33,15.00,469.33
02/15/82,3,Ms.,Ester,Williams,724 West Broadway,Pueblo,CO,81293
303,228-6648,458.99,230.00,688.99
02/06/82,2,Dr.,Carl C.,Chester,1808 Oak Hill Dr.,Alhambra,CA,94553
213,372-8899,287.99,645.78,933.77
```

In this example, eight data records are each broken into two lines, but on your screen, horizontal scrolling permits eight records in eight lines.

NOTE: If you use WordStar in non-document mode to create your datafile, MicroPro recommends that you use only commas to separate fields and only carriage returns to separate records. Otherwise, you will not be able to use the datafile with other programs in the MicroPro family.

Here is the command file you create to extract an address list datafile from INVOICE.DTA. The first four dot commands are required, and the file *must* end with a hard carriage return.

```
MT 0
MB 0
PO 0
PF OFF
DF INVOICE.DTA
RV Date.N.Title.First.Last.Street.City.State.Zip.Area
RV Phone.PrevBal.AmtChgd.BalDue
&Title& &First& &Last& &Street& &City&.&State& &Zip&
```

To produce the new datafile MAILINV.DTA:

• Run MailMerge on the command file.
• Choose disk output option.

```
MAILINV DTA

Ms  Lydia  Esther  Womack  8993  Cherry  Ave   San  Leandro  CA  94532
Ms  Annette  L  Robinson  1322  Blue  Ridge  Dr   San  Diego  CA  98443
Mr  Gerald  R  Franklin  87  Willow  Ave  Gunnison  CO  81539
Mr  Jeffrey  M  Jefferies  622  Virginia  Hills  Denver  CO  80288
Mr  Roland  M  Robinson  1745  Navajoe  Rd   San  Francisco  CA  94720
Mr  James  Peter  Livingston  3354  Main  Street  San  Rafael  CA  94902
Ms  Ester  Williams  724  West  Broadway  Pueblo  CO  81293
Dr  Carl  C  Chester  1808  Oak  Hill  Dr  Alhambra  CA  94553
```

Use the new datafile for all your mailing tasks. Some of these tasks will be described in the applications which follow.

2. Printing Mailing Labels in Three Columns

MailMerge can print your name and address datafile in tabular form suitable for mailing labels. In the WordStar Training Guide you printed single column labels. This example shows how to print the datafile MAILINV.DTA in three columns to correspond to three columns of labels.

MAILINV.DTA

Ms.,Lydia Esther,Womack.8993 Cherry Ave.,San Leandro,CA.94532
Ms.,Annette L.,Robinson.1322 Blue Ridge Dr.,San Diego,CA.98443
Mr.,Gerald R.,Franklin.87 Willow Ave.,Gunnison,CO.81539
Mr.,Jeffrey M.,Jefferies.622 Virginia Hills,Denver,CO.80288
Mr.,Roland M.,Robinson.1745 Navajoe Rd.,San Francisco,CA.94720
Mr.,James Peter,Livingston.3354 Main Street,San Rafael,CA.94902
Ms.,Ester,Williams.724 West Broadway,Pueblo,CO.81293
Dr.,Carl C.,Chester.1808 Oak Hill Dr.,Alhambra,CA.94553

Carefully prepare the master document to look like
the following illustration. The document must have
three columns with tabs and margins set precisely to
match the mailing labels on the printer. As you
prepare this example remember to do the following:

- Set **TAB**s to correspond to label sizes (26 and 51
  in this example).

CAUTION

  Be sure to use the **TAB** key or ^I to move the
  cursor. Do *not* use the **SPACE** bar.

- Use three **.RV** commands (for three columns) and
  put the numbers 1, 2, and 3 after each generic
  name.

  NOTE: A hyphen (-) flag appears in the right
  hand column of a line containing ^P **RETURN**.

- Press **RETURN** after the generic name in the third
  column.

```
L-----------------!-----------------!----------------------------R
.OP
.PF OFF
.DF MAILINV.DTA
.RV Title1, First1, Last1, Street1, City1, State1, Zip1
.RV Title2, First2, Last2, Street2, City2, State2, Zip2
.RV Title3, First3, Last3, Street3, City3, State3, Zip3

&Title1& &First1& &Last1& ˆP RETURN
                &Title2& &First2& &Last2& ˆP RETURN
                                &Title3& &First3& &Last3& RETURN

&Street1& ˆP RETURN
                &Street2& ˆP RETURN
                                &Street3& RETURN

&City1& ˆP RETURN
                &City2& ˆP RETURN
                                &City3& RETURN

&State1& &Zip1& ˆP RETURN
                &State2& &Zip2& ˆP RETURN
                                &State3& &Zip3& RETURN
```

NOTE: Although **ˆP RETURN** and **RETURN** have been printed in the illustration to show exactly how to set up the three columns, they do not actually appear on the screen.

When the master document is ready:

- Print the master document with MailMerge.

- Ignore the "null data" warning message that appears on the screen when you print.

MailMerge prints the name and address file in three columns as shown in the following example:

Ms. Lydia Esther Womack 8993 Cherry Ave. San Leandro CA 94532	Ms. Annette L. Robinson 1322 Blue Ridge Dr. San Diego CA 98443	Mr. Gerald R. F 87 Willow Ave. Gunnison CO 81539
Mr. Jeffrey M. Jefferies 622 Virginia Hills Denver CO 80288	Mr. Roland M. Robinson 1745 Navajoe Rd. San Francisco CA 94720	Mr. James Peter Livingston 3354 Main Street San Rafael CA 94902
Ms. Ester Williams 724 West Broadway Pueblo CO 81293	Dr. Carl C. Chester 1808 Oak Hill Dr. Alhambra CA 94553	

Use MailMerge to print other tabular data such as figures and statistics or even designs.

3. Using File Inserts to Put Paragraphs in a Letter

Suppose you want to send a variation on a form letter to customers in different regions. You can insert a special paragraph in each letter with file inserts.

For this example, the datafile, MAILINV.DTA has been altered slightly. Some cities and states have been changed.

```
MAILINV.DTA

Ms..Lydia Esther.Womack.8993 Cherry Ave .San Leandro.CA.94532
Ms .Annette L .Robinson.1322 Blue Ridge Dr .Dallas.TX 75277
Mr..Roland M..Robinson.1745 Navajoe Rd .San Francisco.CA.94720
Mr..James Peter.Livingston.3354 Main Street.San Rafael.CA.94902
Ms .Ester.Williams.724 West Broadway.Pueblo.CO.81293
Dr .Carl C .Chester.1808 Oak Hill Dr .Buffalo.NY.14251
Mr..Gerald R .Franklin.87 Willow Ave .Gunnison.CO.81539
Mr..Jeffrey M .Jefferies.622 Virginia Hills.Denver.CO.80288
```

Four separate document files are created, using the
state abbreviations as file names, i.e., CA, CO, TX,
NY. A paragraph, in this case, the address of a
regional dealer, is put in each file. A .FI (file insert)
with &STATE& as the generic name is placed in the
master document where the dealer address is to go:

```
.FI &STATE&
```

That's it.

When MailMerge is run, the state from the datafile
record is inserted in place of the generic name. Then,
as it is a .FI command, the file with the
corresponding state name is inserted into that place.

Here are the separate files created:

```
(FILE CA)
Cosmic Creations
1980 Main St.
San Rafael, CA 94903
```

```
(FILE CO)
Electronic Ecstasy
3218 Collins Ave.
Denver, CO 80202
```

```
(FILE NY)
Global Gizmos
36477 N.W. First St.
New York, NY 10168
```

```
(FILE TX)
Futuristic Funthings
Five-fifty 55th St.
Dallas, TX 75240
```

Here is the master document:

```
OP
DF MAILINV.DTA
RV TITLE,FIRST,LAST,STREET,CITY,STATE,ZIP

&TITLE& &FIRST& &LAST&
&STREET&
&CITY&, &STATE& &ZIP&

Dear &TITLE& &LAST&,

Thank you for your interest in Galactica products. The enclosed flyer should
introduce you to the advantages that Galactica toys offer.

If you have any questions you may contact the dealer in your area:
.FI &STATE&

If I can be of any further service to you, please do not hesitate to call.

Sincerely,


Jay Salesman
Galactica
 PA
```

Here is one result:

Dr. Carl C. Chester
1808 Oak Hill Dr.
Buffalo, NY 14251

Dear Dr. Chester,

Thank you for your interest in Galactica products. The enclosed flyer should introduce you to the advantages that Galactica toys offer.

If you have any questions you may contact the dealer in your area:

Global Gizmos
36477 N.W. First St.
New York, NY 10168

If I can be of any further service to you, please do not hesitate to call.

Sincerely,

Jay Salesman
Galactica

4. Changing Legal Documents into Master Documents

Many forms produced in legal offices are identical except for names and dates. These legal documents can easily be changed into master documents to be used with MailMerge.

This form, a "Stipulation and Order for Transfer," has been made into a master document by substituting generic names enclosed by ampersands throughout the form wherever a change would occur. As you can see, the text remains the same; only names and numbers are changed.

MailMerge dot commands are placed at the top of the form. In this case .RV commands (Read Variables) have been used. The example supplies a datafile, LEGAL.DTA, with the information needed to complete the form. A .SV command (Set Variable) has been used to set the date for each unique document.

A completed form with information from the first record in LEGAL.DTA follows the master document.

The following datafile, LEGAL.DTA, is used with the master document file, LEGAL.FRM. These data match the order of the generic names in the .RV (read variable) line of the master document.

NOTE: On your screen, "Birney, Barnes, Billings" would appear on the same line as each data record, not on a second line, as in this example.

```
LEGAL.DTA

Owen Marshall,9988765,John Smith,James Jones,William Foster,Ralph Morris,
"Birney, Barnes, Billings"
Della Street,4532679,Barrymore,Taylor,Reynolds,Fisher,
"Birney, Barnes, Billings"
Perry Mason,8765890,Cunningham,Webber,Fonzerelli,Ralph,
"Birney, Barnes, Billings"
```

.OP
.DF LEGAL.DTA
.RV ATTORNEY,NUMBER,PLAINTIFF,DEFENDANT,CROSSCOM,CROSSDEF,LAWFIRM
.SV DATE JUNE 30, 1982

Jones, Smith and Mason
&ATTORNEY&
33 Market Street
Suite 35
San Francisco, CA 94801
(415) 555-3412

IN THE MUNICIPAL COURT
San Francisco, California

&PLAINTIFF&,
    Plaintiff,   No. &NUMBER&
   vs.   STIPULATION AND ORDER FOR
            TRANSFER OF ACTION TO SUPERIOR
&DEFENDANT&,   COURT
    Defendant,

&CROSSCOM&,
  Cross-complainant,

    vs.

&CROSSDEF&,
  Cross-defendant.

IT IS HEREBY STIPULATED by and between counsel for the parties in the above-entitled action that the action shall be transferred to the Superior Court of California, San Francisco, because the cross-complainant has raised the amount involved beyond the jurisdiction of this court.

  Dated: &DATE&

      Attorney for Plaintiff

      &LAWFIRM&

   By

      Attorneys for Defendants
      and Cross-complainant

      ORDER

It is so ordered.

Dated:

      Judge of the Municipal Court

.PA
....

Jones, Smith and Mason
Owen Marshall
33 Market Street
Suite 35
San Francisco, CA 94801
(415) 555-3412

IN THE MUNICIPAL COURT
San Francisco, California

John Smith,
        Plaintiff,   No. 9988765

    vs.   STIPULATION AND ORDER FOR
                                      TRANSFER OF ACTION TO SUPERIOR
James Jones,   COURT
        Defendant,

William Foster,
   Cross-complainant,

      vs.

Ralph Morris,
   Cross-defendants.

   IT IS HEREBY STIPULATED by and between counsel for the parties in the above-entitled action that the action shall be transferred to the Superior Court of California, San Francisco, because the cross-complainant has raised the amount involved beyond the jurisdiction of this court.

   Dated: June 30, 1982

                           _____

                           Attorney for Plaintiff

                           Birney, Barnes, Billings

          By

                           _____

                           Attorneys for Defendants
                           and Cross-complainant

          ORDER

It is so ordered.

Dated: _____

                           Judge of the Municipal Court

5. Completing Legal Forms with Operator Input: An Affidavit

An "Affidavit" has been made into a master document with generic names substituting for names, numbers, etc. In this example, .AV commands (Ask Variable) are used. As these questions appear on the screen one at a time when MailMerge is run, the operator types information in response.

Notice that the generic names are boldfaced on the master document by using the WordStar boldfacing command - ^PB - when the form is created. The variable data which are substituted for the generic names are in turn boldfaced, as you can see on the completed form which follows:

```
                          AFFIDAVIT

           POWER OF ATTORNEY OF AUTHORIZATION OF AGENT

AV "Date of issue ?" Date
AV "Which State?" State
AV "Which County?" County
CS
AV "Trademark" Trademark
AV "Registrant or authorized person?" Registrant
AV "Registration Number?" Number
AV "Type of Commerce? Interstate or Foreign" Commerce

                          Mark &Trademark&
                          Reg. No. &Number&
                          Date of issue &Date&
                          To: &Registrant&

State of &State&
County of &County&


     &Registrant& being sworn, states that &Registrant& owns Registration
No. &Number&, as shown by records in the Patent Office; that said registration
is now in force; that the mark shown therein is in use in &Commerce& commerce
on each of the following goods recited in the registration &Number&; and that
the benefits of the act of July 5, 1946, are hereby claimed for said registration.


                          _____
                          (Signature and Title)
.PA
```
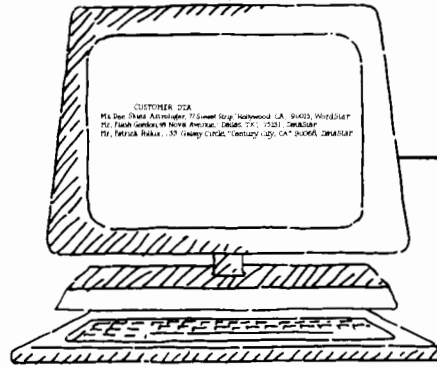
AFFIDAVIT

POWER OF ATTORNEY OF AUTHORIZATION OF AGENT

Mark **DATA TOGGLES**
Reg. No. **2,345,678**
Date of issue **August 31, 1982**
To: **Jamison Doe**

State of **California**
County of **Los Angeles**

    Jamison Doe being sworn, states that **Jamison Doe** owns Registration No. **2,345,678**, as shown by records in the Patent Office; that said registration is now in force; that the mark shown therein is in use in **interstate** commerce on each of the following goods recited in the registration **2,345,678**, and that the benefits of the act of July 5, 1946, are hereby claimed for said registration.

(Signature and Title)

Appendix D
Quick Guides to Using MailMerge

To produce a series of personalized form letters, a list of mailing addresses is merged with a master document for a form letter.

QUICK GUIDE 1

CREATE YOUR MAILING LIST

QUICK GUIDE 2

CREATE YOUR FORM LETTER

QUICK GUIDE 3

PRINT YOUR LETTER SERIES

QUICK GUIDE 4

CREATE YOUR COMMAND FILE

Quick Guide 1: Producing A Datafile (Mailing List)

TO CREATE YOUR MAILING LIST

In creating a mailing list, or any datafile, you must follow these guidelines (or use DataStar, which will automatically set up your file this way):

1. Enter data using WordStar in **NON-DOCUMENT** mode.

2. Begin each record in **COLUMN 1.**

3. Separate categories of information (fields) with **COMMAS.**

4. Follow *every* field with a comma **EVEN IF THERE IS NO DATA FOR A FIELD.**

5. If a field entry is to contain a comma, frame the entire field in **QUOTES.**

6. Follow the last field in each record with a **CARRIAGE RETURN.**

7. Enter every record with the same number of fields, in the same order.

These guidelines are illustrated in the steps below:

STEP 1.   From the WordStar Opening Menu:

TYPE: **N**

SEE:

Name of file to edit?

TYPE: **mailing.dta RETURN**

STEP 2.   Enter your mailing list, following the guidelines listed above.

```
B CUSTOMER.DTA
Ms .Dee Skies,Astrologer,77 Sunset Strip,"Hollywood, CA",90025,WordStar   <       RETURN
Mr .Flash Gordon, ,99 Nova Avenue,"Dallas, TX",75231,DataStar             <       RETURN
Mr .Patrick Pollux, ,33 Galaxy Circle,"Century City, CA",90068,DataStar   <       RETURN
Mr .Sky King,Rancher, ,"Missoula, MT",59802,WordStar                      <       RETURN
Ms .Polly Polaris,Space Caseworker,664 Etoile Court,"Jacksonville, FL",331 +      RETURN
```

STEP 3.   Save your file: After the last **RETURN,**

TYPE: **^KD**

Quick Guide 2: Producing A Master Document

TO CREATE YOUR FORM LETTER

The form letter shown in the example below uses the mailing list datafile created in **QUICK GUIDE 1.**

The basic guidelines which apply to master documents are:

1. Enter the **.DF COMMAND BEFORE THE .RV COMMAND**

2. Identify all generic names, using .DF, .AV and .SV commands, *before* they are placed in the text and **SURROUNDED BY AMPERSANDS.**

3. End the last line with a **CARRIAGE RETURN.** When the master document is a form letter, end the last line with a **NEW PAGE COMMAND (.PA)** followed by a carriage return.

These guidelines are illustrated in the steps below:

STEP 1.   From the WordStar Opening Menu:

TYPE: **D**

SEE:

```
Name of file to edit?
```

TYPE: **formltr RETURN**

STEP 2.   Beginning in column 1, enter the form letter exactly as shown below.

```
.op        RETURN
.df customer.dta        RETURN
.rv m,name,title,street,locale,zip,product        RETURN
.sv DATE November 13, 1983        RETURN
&date&        RETURN
RETURN
&m&  &name&        RETURN
&title/O&        RETURN
&street/O&        RETURN
&locale& &zip&        RETURN
RETURN
Dear &m& &name&,        RETURN
RETURN
(type the body of your letter and the closing)
.pa        RETURN
```

STEP 3.   Save your file: After the last **RETURN,**

TYPE: **^KD**

Quick Guide 3: Printing Through MailMerge
(Form Letter Series)

**TO PRINT
YOUR LETTERS**

The example below gives instructions for printing the form letter produced in **QUICK GUIDE 2**, with the mailing list created in **QUICK GUIDE 1**.

STEP 1.   From the WordStar Opening Menu:

TYPE: **M**

SEE:

Name of file to MailMerge?

TYPE: **formltr RETURN**

STEP 2.   Answer the following prompts as shown:

For default press RETURN for each question:	
Disk file output (Y N):	**RETURN**
Start at page number?	**RETURN**
Stop after page number?	**RETURN**
Number of copies?	**RETURN**
Use form feeds (Y N):	**RETURN**
Suppress page formatting (Y N)	**RETURN**
Pause for paper change between pages (Y N): Y	**RETURN**
Ready printer, press RETURN:	**RETURN**

STEP 3.   MailMerge will pause after each letter, and wait for you to prepare your printer with the next sheet of letterhead paper. When the printer is ready, respond:

P Continue PRINT   **P**

Quick Guide 4. Creating A Command File (For Form Letter)

The form letter produced in **QUICK GUIDE 2** used the .SV command to specify the DATE within the FORMLTR file itself. In this example, a command file is created which includes an .AV command to ask for the date at the start of the print run.

CREATE YOUR COMMAND FILE

A "command" file contains no text (or very little text); each line is a MailMerge **DOT COMMAND.**

STEP 1.   Create your datafile(s) and master document(s) as shown in **QUICK GUIDES 1 and 2,** but omit the line in the form letter which begins with the command: .SV.

STEP 2.   From the WordStar Opening Menu:
TYPE: **N**
SEE:

```
Name of file to edit?
```

TYPE: **formltr.cmd RETURN**

STEP 3.   Beginning in column 1, enter a list of commands as shown:

```
cs
av "Please enter today's date:", DATE
fi formltr
```

STEP 4.   Save your file:
After the last **RETURN,** TYPE ^KD

STEP 5.   From the WordStar Opening Menu:
TYPE: **M**
SEE:

```
Name of file to MailMerge?
```

TYPE: **formltr.cmd RETURN**
Answer the prompts as shown in **QUICK GUIDE 3.**

STEP 6.   MailMerge will clear the screen and display this prompt:

```
Please enter today's date
```

Respond by typing the date and pressing RETURN.

STEP 7.   MailMerge will pause after each letter, and wait for you to prepare your printer with the next sheet of letterhead paper.
Respond as shown in **QUICK GUIDE 3.**

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