

# 4 Managing Files

This chapter describes how to open and save your meta-files, and how to share the data in a meta-file with other applications, such as SPSS.

Creating a Meta-file .....	53
Opening an Existing Meta-file .....	56
Selecting the Meta-file .....	56
Changing the Directory .....	58
Saving a Meta-file .....	59
Saving When You Exit .....	60
Copying, Deleting, and Renaming a Meta-file .....	62
Copying a Meta-file .....	62
Deleting a Meta-file .....	64
Renaming a Meta-file .....	65
Keeping Backups of Your Data .....	68
Description of Backup Files .....	68
Recovering Data from Backup Copies .....	69
Keeping Backups on Diskette .....	70
Sharing Data with Other Applications .....	71
ASCII Files Used for Importing/Exporting .....	71
Exporting a Meta-Analysis .....	74
Importing a Meta-Analysis .....	75
Converting a Meta-Analysis for SPSS .....	77



## Creating a Meta-file

Your first task in performing a meta-analysis is to create a meta-file. A meta-file holds the following information:

- ! Variables that you will use to conduct your meta-analysis
- ! Studies that you will analyze

*A meta-file is actually two DOS files. For more information, see the section "Keeping Backups of Your Data" later in this chapter.*

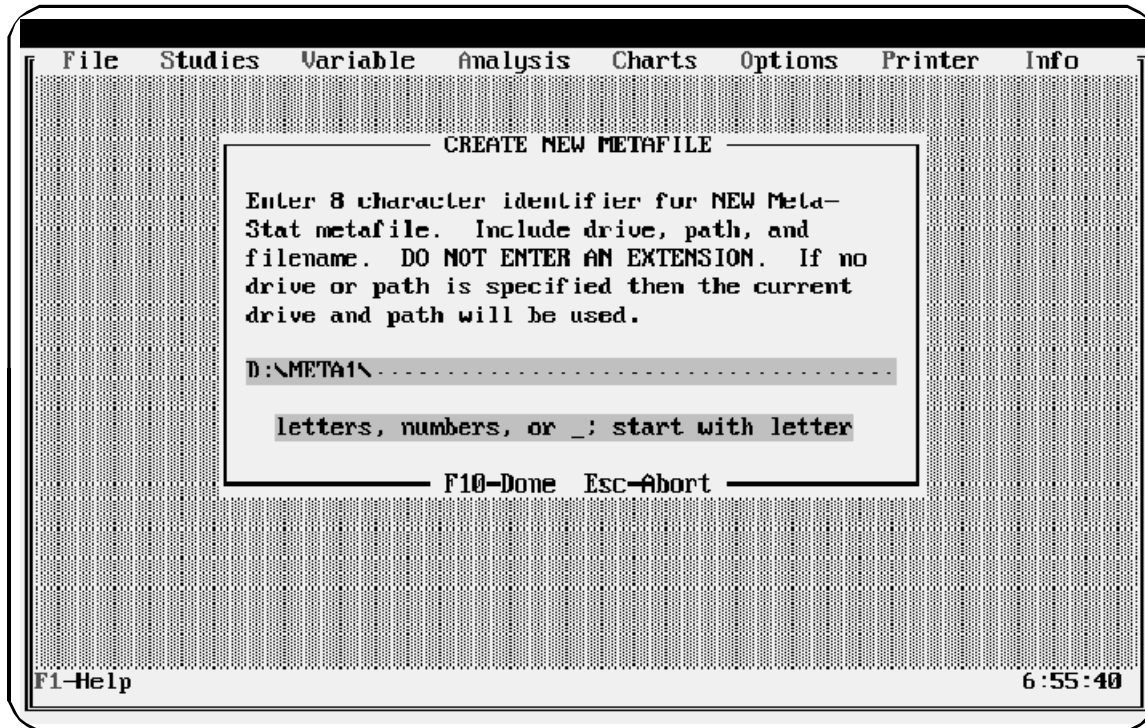
Follow these steps to create a meta-file:

1. Select File/New
2. If necessary, close any open meta-file by following these steps:
  - ! If you have already opened a meta-file, **Meta-Stat** asks if you want to close it. Press Y or N.
  - ! If you tell **Meta-Stat** to close the open file, and you have made changes to it, **Meta-Stat** asks if you want to save your changes. Press Y or N.
3. Type a name, up to eight characters long, for the new meta-file. The name should provide a good description of the meta-file, so that you can distinguish one meta-file from another on **Meta-Stat** screens.

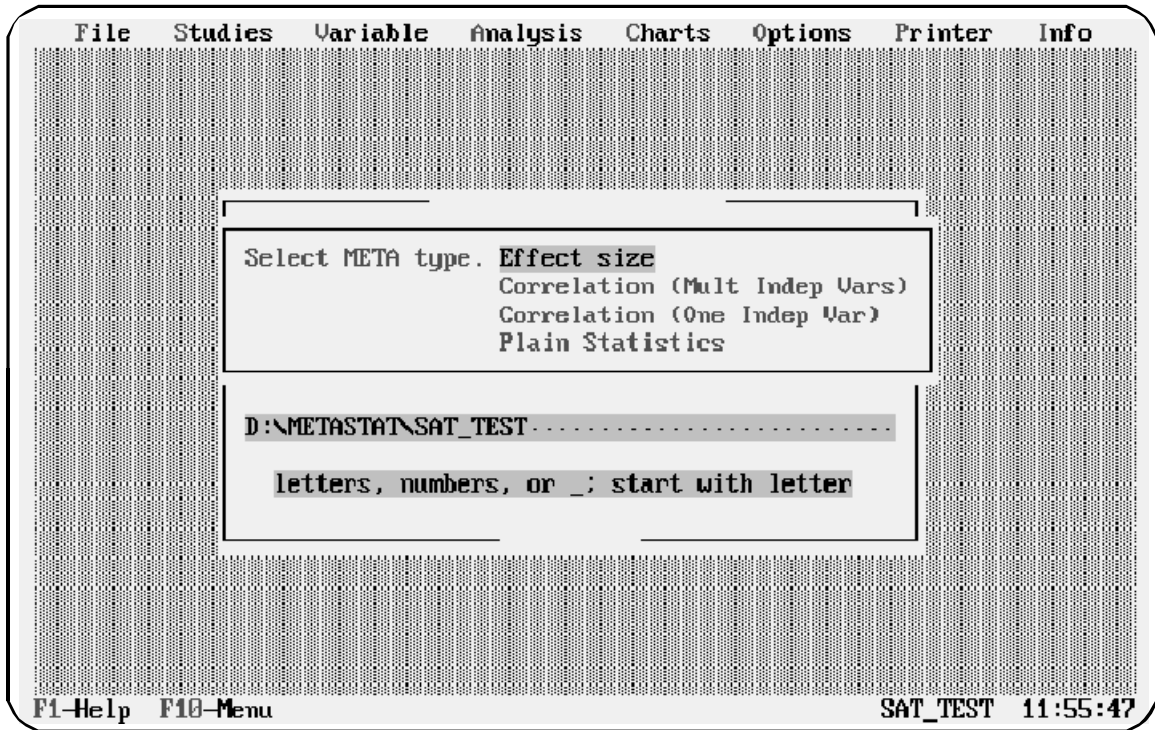
The name should also follow normal DOS file-naming rules:

- ! Use numbers, letters, and the underline character.
- ! Do not use punctuation such as the period or comma.

In the following example, the meta-file is called SAT\_TEST:

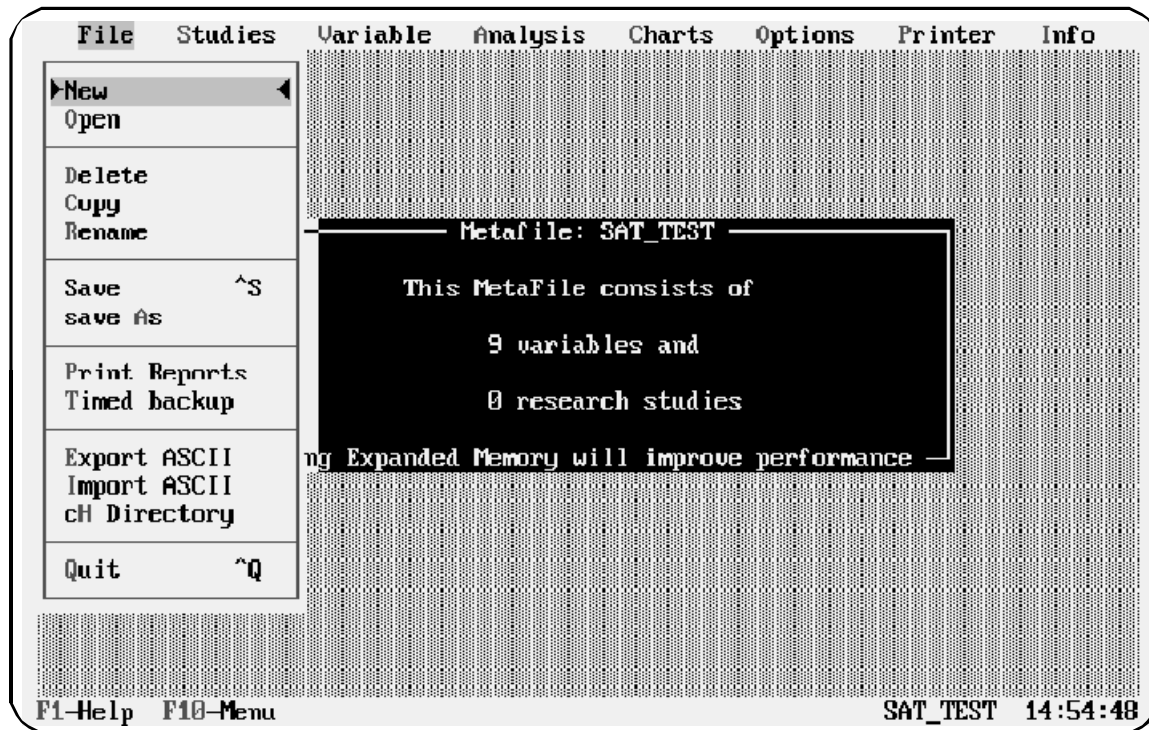


4. Select the type of meta-analysis you are performing, Effect size or Correlation.



- 5. *Meta-Stat* displays the name of the meta-file, along with the number of variables and studies in it.

*Meta-Stat* automatically creates some variables for you. See Chapter 4 for more information.



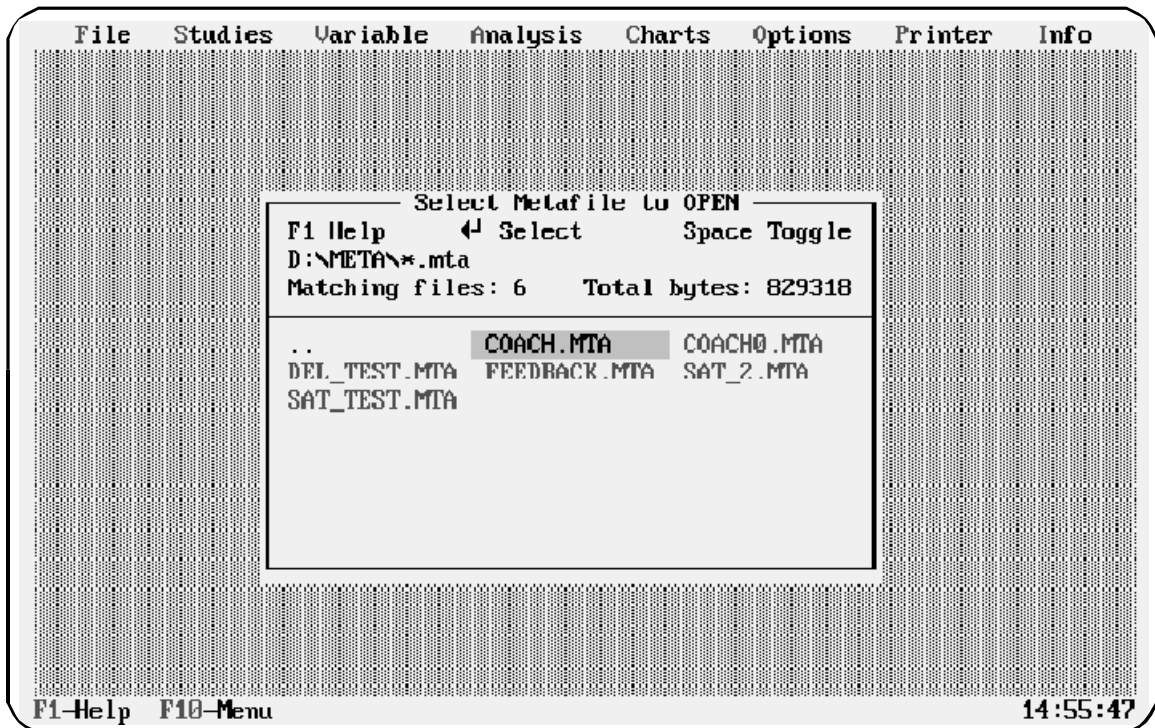
## Opening an Existing Meta-file

When you want to work with an old meta-file, you must open it. Follow these steps:

1. Select File/Open
2. If necessary, close any open meta-file by following these steps:
3. Select the meta-file you want to open. If necessary, change the directory where the meta-file is stored. See the following sections for more information.

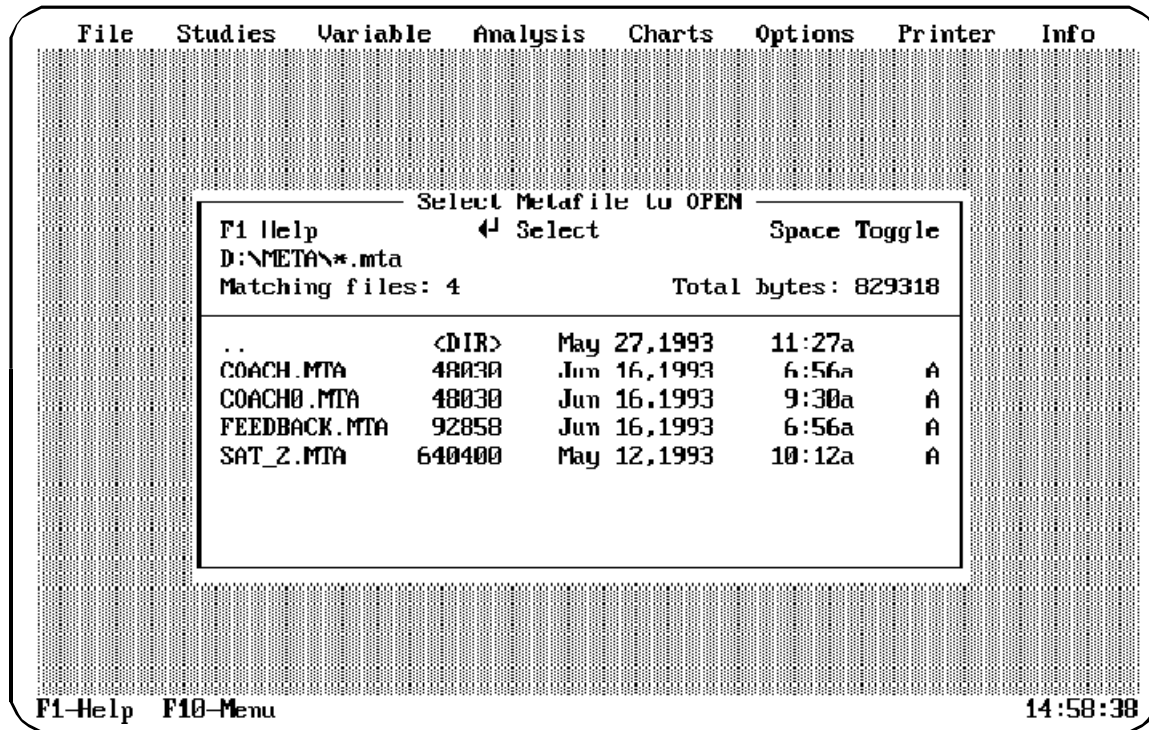
### Selecting the Meta-file

1. After you select File/Open, *Meta-Stat* displays a list of meta-files in the current directory:



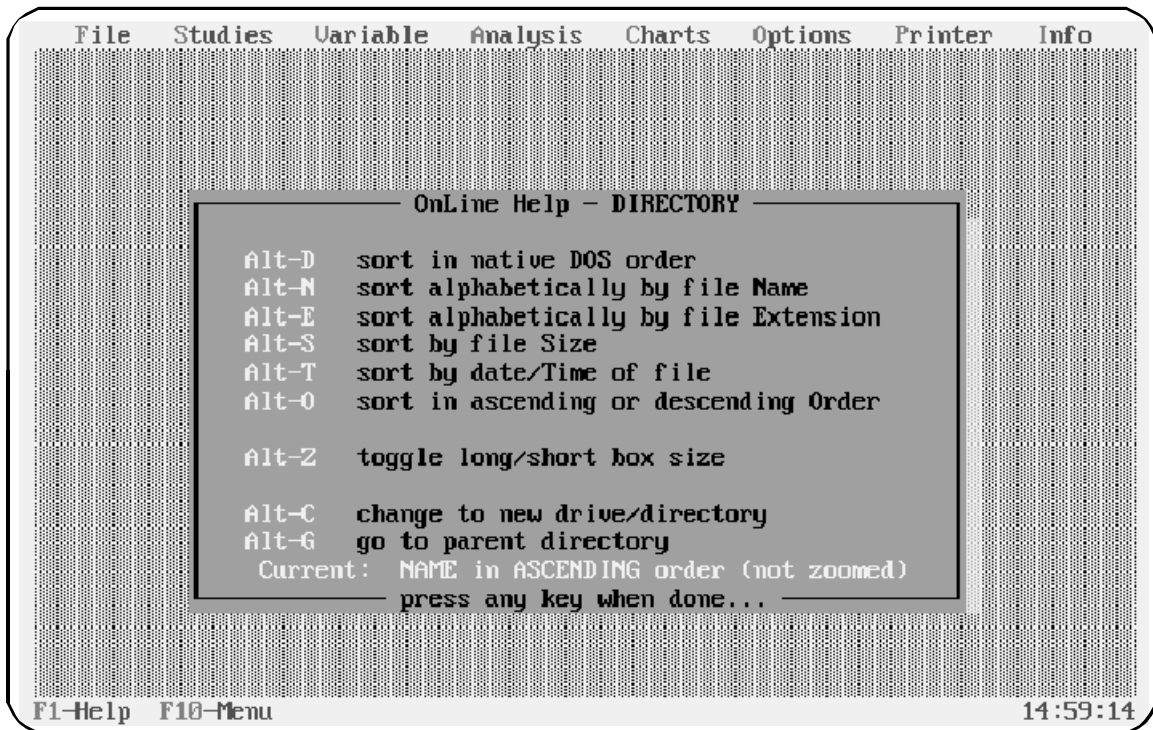
2. If necessary, press Space to display the sizes of the meta-files in the current

directory, along with the date and time when they were last changed:



3. Press F1 to display a list of commands available for sorting the list of files:



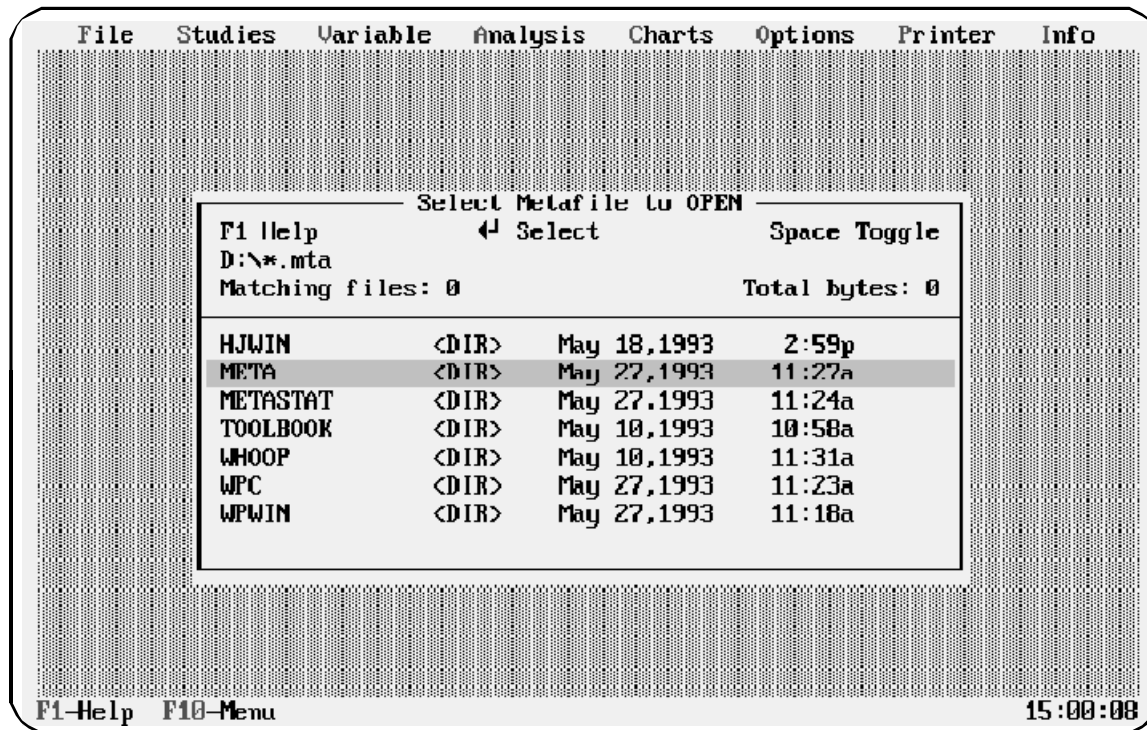


4. Press any key to return to the list of files.
5. To select a meta-file, use the CURSOR keys to highlight the file, then press Enter.

### Changing the Directory

If necessary, you can change the directory from which *Meta-Stat* displays the list of meta-files.

1. Press Alt-G to display the parent directory:



Note: Instead of pressing Alt-G, you can display the parent directory by moving the cursor to the .. in the directory list and pressing Enter.

2. In the list of directories, use the CURSOR keys to highlight the directory, then press Enter.
3. In the directory you selected, pick the meta-file you want to open. See the previous section for more information.

## Saving a Meta-file

When you change a meta-file by adding variables and studies, *Meta-Stat* keeps track of the changes in your computer's memory. However, *Meta-Stat* does not automatically save your changes on disk. Therefore, you should make sure that you save your changes on disk—either periodically or when you exit.

You can save the open meta-file using its existing name, or you can save it under a new name. The following sections describe your options.

### Saving Periodically

To protect yourself from losing data during a power failure or other problem, you should save the open meta-file periodically.

Select File/Save (^S) to save the open meta-file.

When you use File/Save, *Meta-Stat* uses your backup files to save any changes. When you exit *Meta-Stat*, you must again tell *Meta-Stat* to save changes. This makes your changes permanent, because *Meta-Stat* saves them in your original meta-file. If you do not save when you exit, your original meta-file is not updated with the additions and changes made during the session.

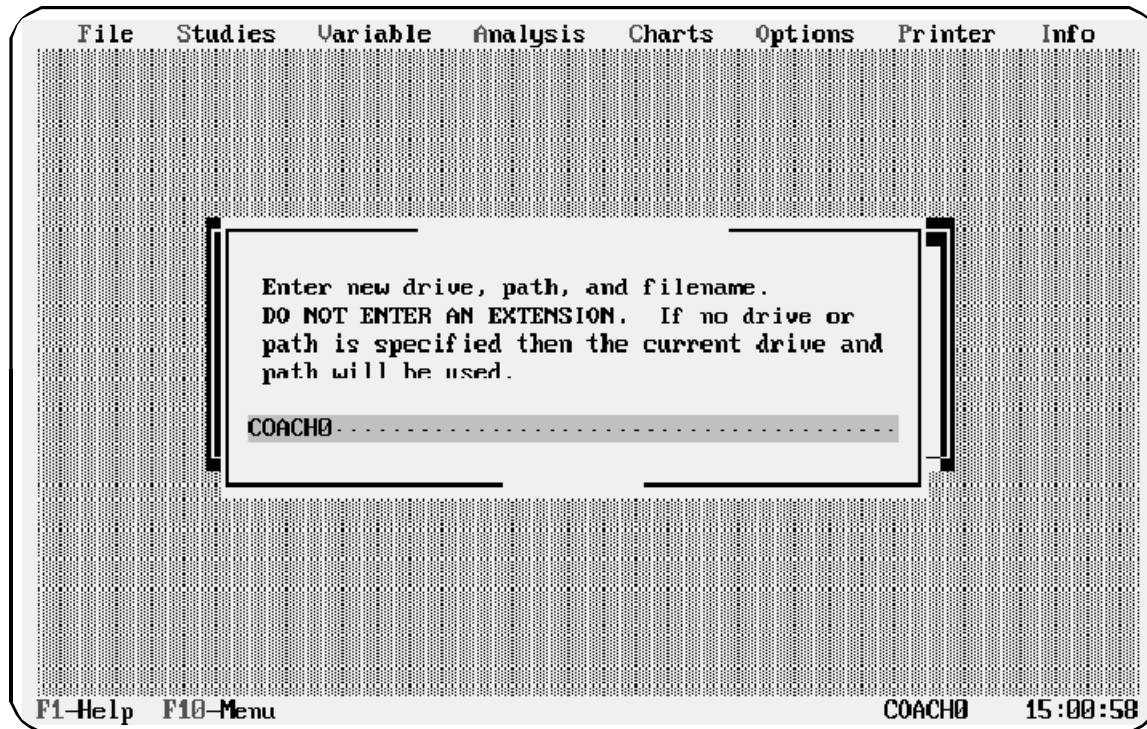
Note: You can also use the *Meta-Stat* timed backup feature to protect yourself from data losses. For more information, see the section "Keeping Backups of Your Data" later in this chapter.

### Saving Under a New Name

You can save a meta-file under a new name. Follow these steps:

1. Select File/save As

*Meta-Stat* prompts you to name the new file:

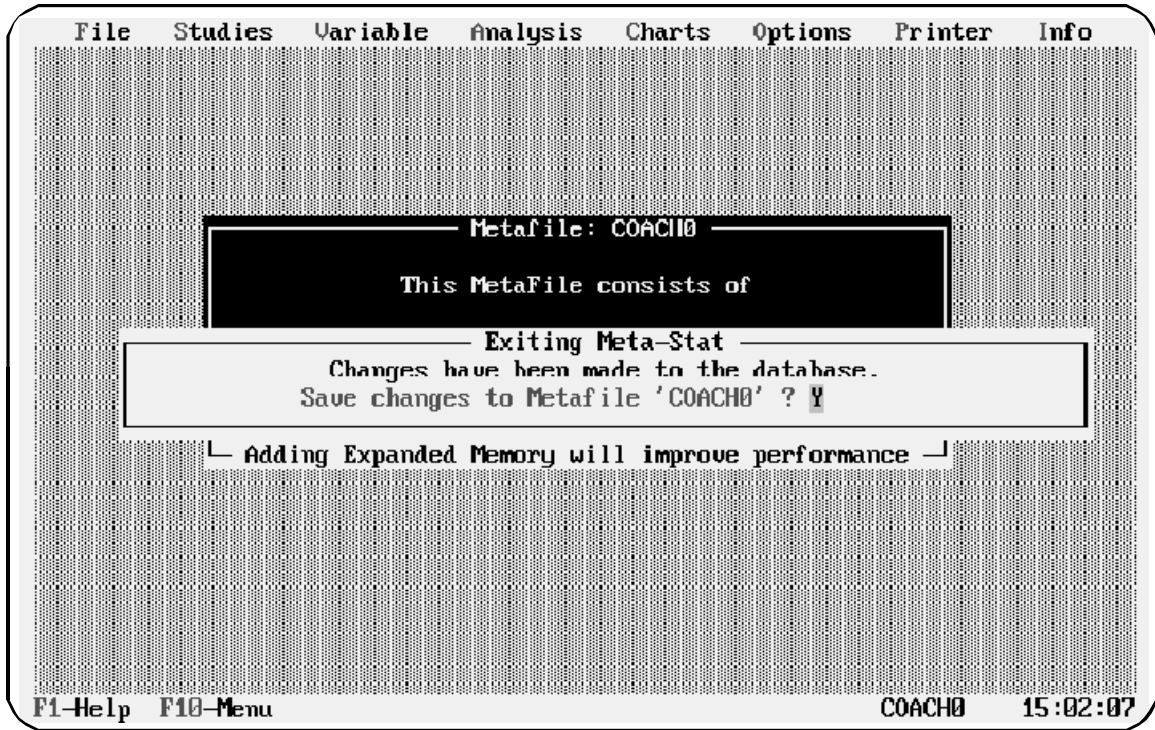


2. Type a new name for the file, then press Enter.

You can precede the file name with a drive and directory path, if necessary, e.g. a:\DATA\COACH2. If you do not, *Meta-Stat* saves the file in the current directory.

### Saving When You Exit

When you exit, *Meta-Stat* prompts you to save the changes to your data:



If you do not save changes, *Meta-Stat* does not update your original files with *any* of the changes you made during the session.

Press Y to save your changes.

## Copying, Deleting, and Renaming a Meta-file

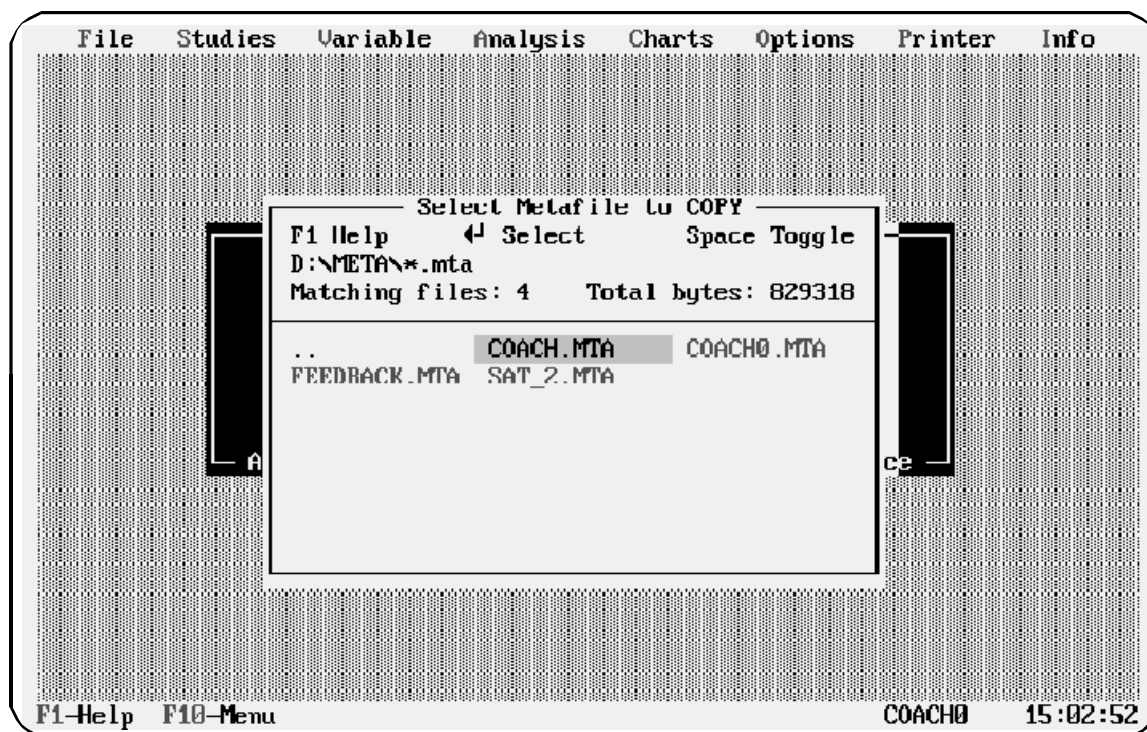
You can do many file-management chores directly within *Meta-Stat*. You can:

- ! Copy a meta-file
- ! Delete a meta-file you no longer need
- ! Rename a meta-file

### Copying a Meta-file

1. Select File/Copy

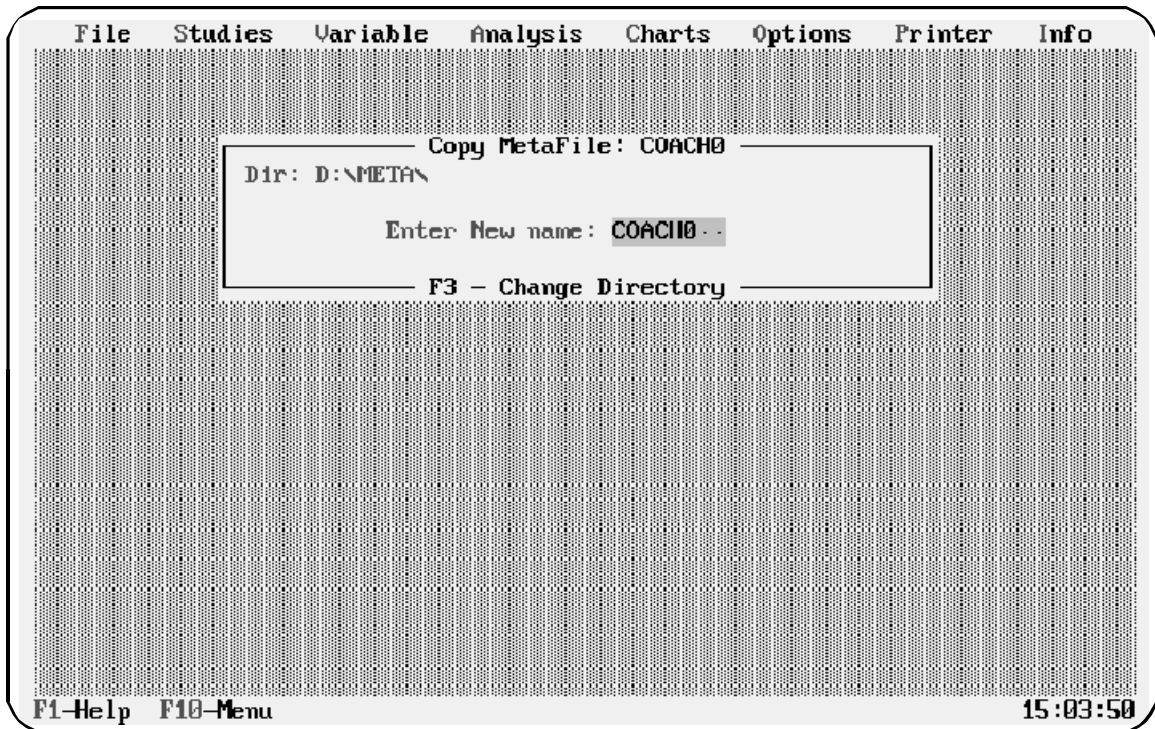
*Meta-Stat* prompts you to select the file you want to copy:



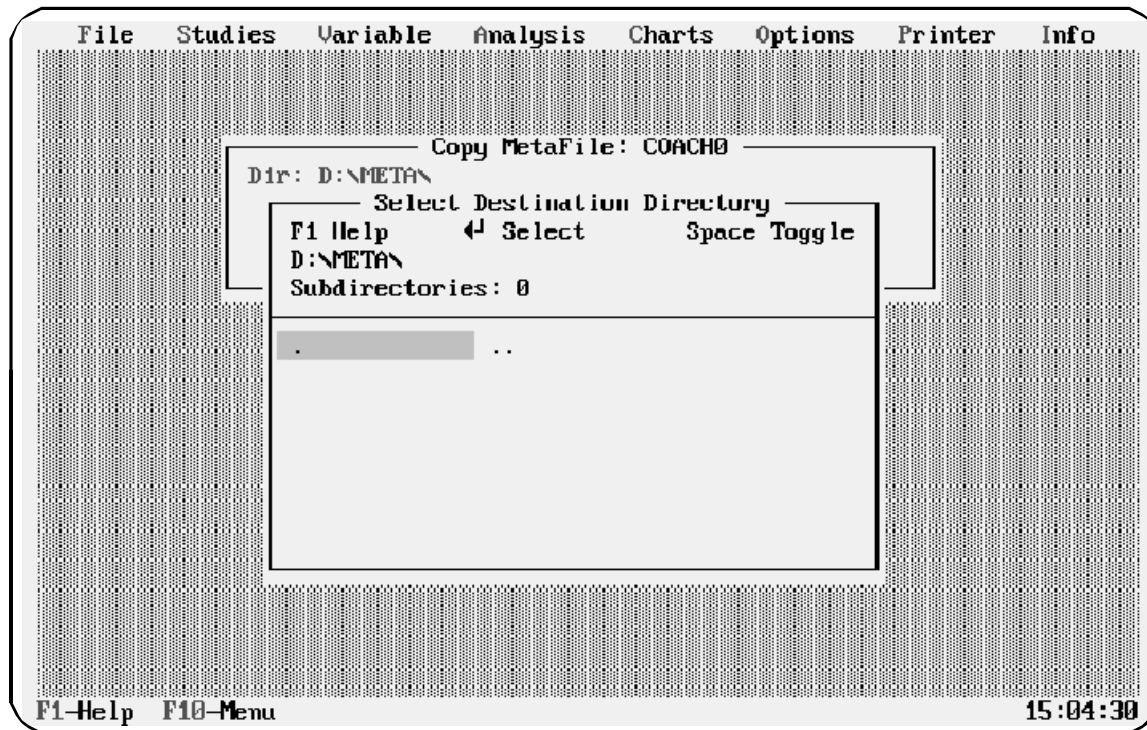
2. If necessary, first select the directory in which the file is located. For more information, see the section "Changing the Directory" earlier in this chapter.

3. Use the CURSOR (arrow) keys to highlight the file, then press Enter.

Meta-Stat prompts you to identify the name of the new file:



4. To change the directory where the copy will be located:
  - a. Press F3 to display this screen:



- b. Move the cursor to the .. and press Enter.

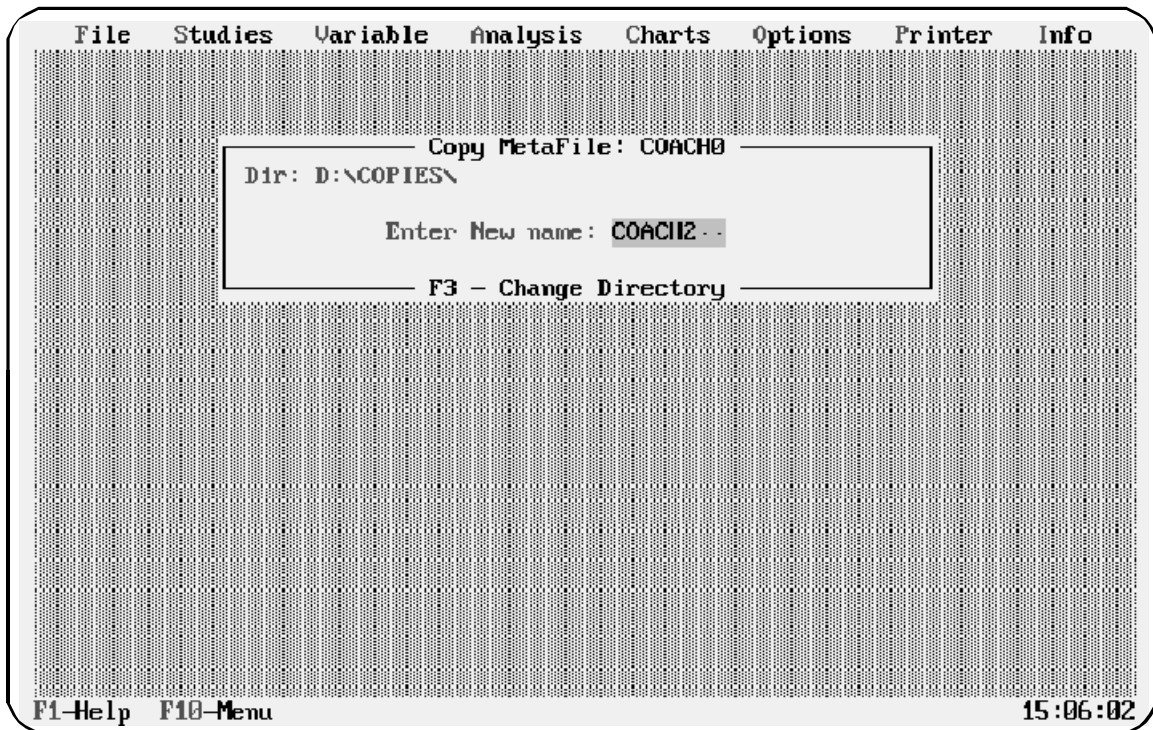
*Meta-Stat* displays a list of directories.

- c. In the list of directories, use the CURSOR keys to highlight the directory, then press Enter.
- d. Move the cursor to the . and press Enter.

*Meta-Stat* again prompts you to identify the name of the new file.

5. Type the filename. In the following example, a meta-file called COACH0 is being copied to a directory called COPIES. The name of the copied file is COACH2:





### Deleting a Meta-file

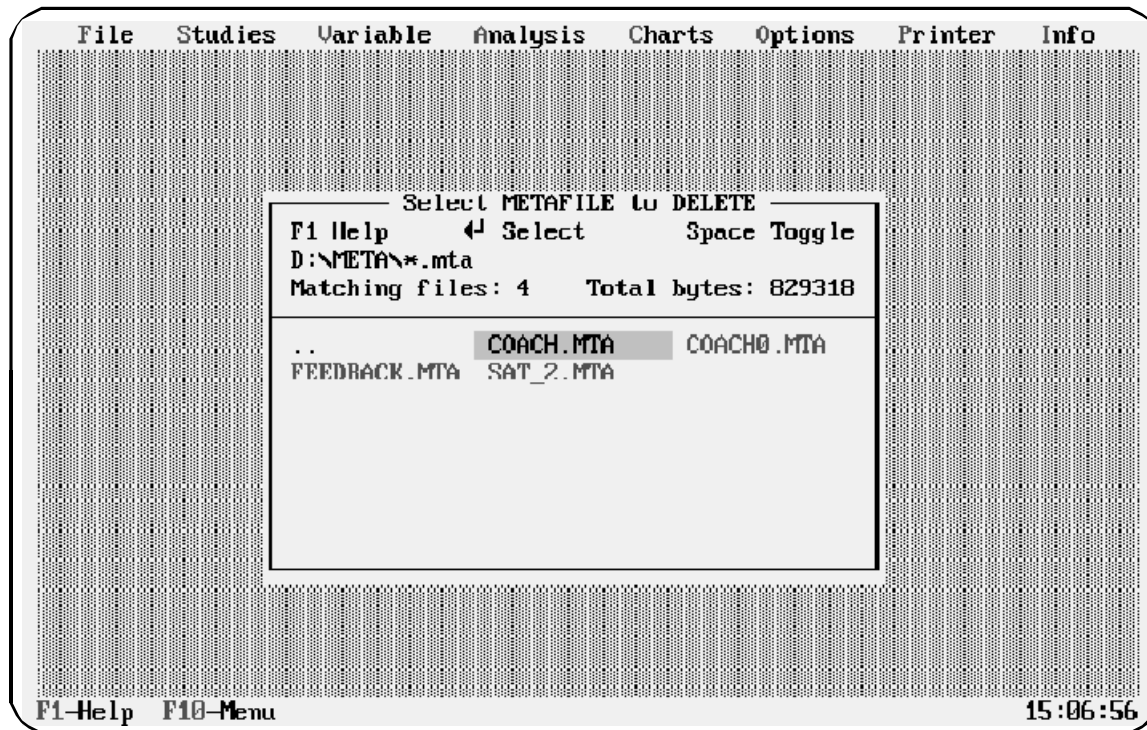
You can delete a meta-file that you no longer need.

Warning: *Meta-Stat* deletes all files associated with the meta-analysis, including backup files.

Follow these steps:

1. Select File/Delete

*Meta-Stat* prompts you to select the file you want to delete:



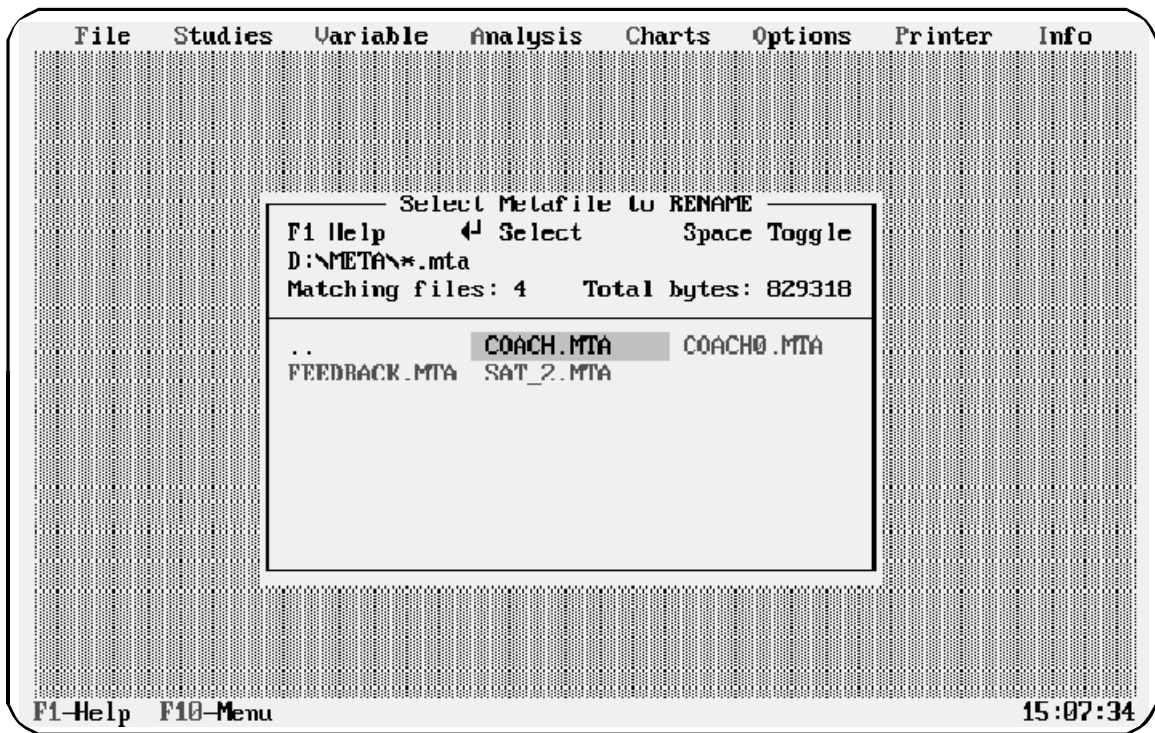
2. If necessary, first select the directory in which the file is located. For more information, see the section "Changing the Directory" earlier in this chapter.
3. Use the `CURSOR` keys to highlight the file, then press `Enter`.

*Meta-Stat* asks you to confirm the deletion. Press `Y` or `N`.

### Renaming a Meta-file

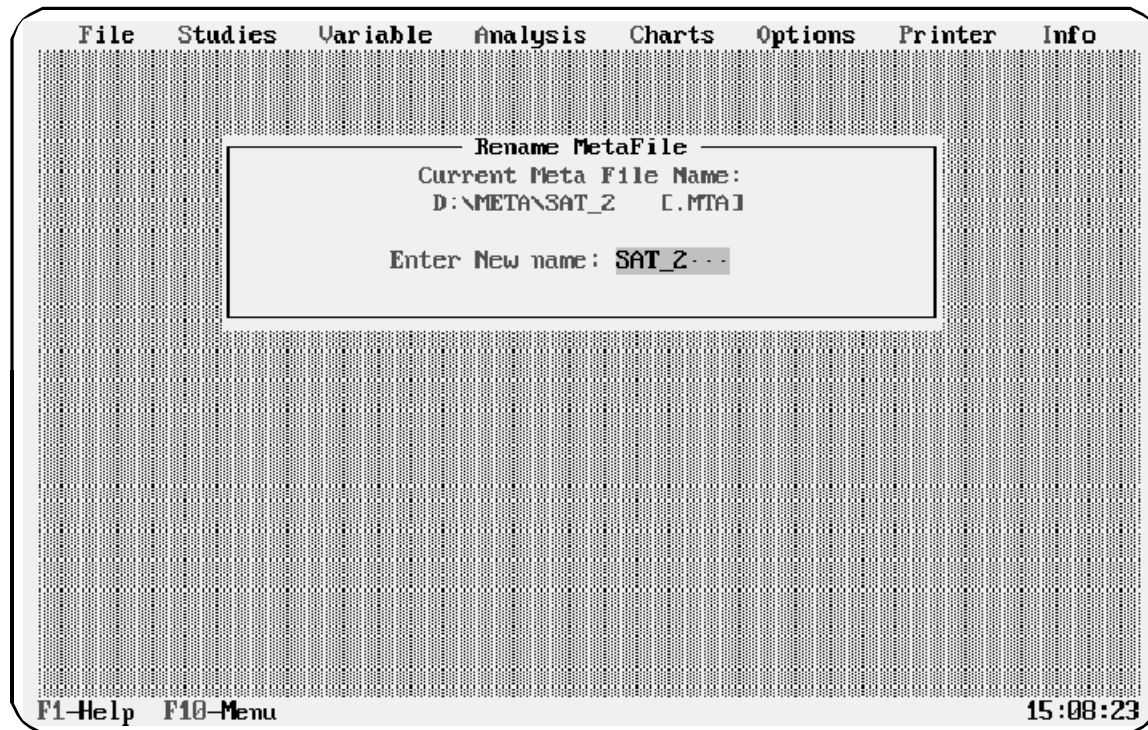
1. Select File/Rename

*Meta-Stat* prompts you to select the file you want to rename:



2. If necessary, first select the directory in which the file is located. For more information, see the section "Changing the Directory" earlier in this chapter.
3. Use the cursor keys to highlight the file, then press Enter.

*Meta-Stat* prompts you to identify the new name for the file:



4. Use the editing keys Del , Ins, and Backspace to remove and insert characters in the file name.
5. Press Enter when you have finished.

## Keeping Backups of Your Data

When you start *Meta-Stat* and open a meta-file, the program makes a backup copy of your data.

The following sections show you how to make more frequent backups, and how to recover data from backup copies.

### Description of Backup Files

A meta-file actually consists of two files:

- ! A definitions file contains the variables you have defined. This file is named:

*<meta-name>.DEF*

- ! A second file contains study data. This file is named:

*<meta-name>.MTA*

The *<meta-name>* is the name you gave to the meta-analysis. The filename extension, DEF or MTA, is assigned by *Meta-Stat*.

When *Meta-Stat* creates a backup copy of your data, it copies the two files described above and changes the filename extensions. The following table describes the backup files:

Name of Backup File	Contents
<i>&lt;meta-name&gt;.DE!</i>	Copy of <i>&lt;meta-name&gt;.DEF</i>
<i>&lt;meta-name&gt;.MT!</i>	Copy of <i>&lt;meta-name&gt;.MTA</i>

### Creating Backup Files Frequently

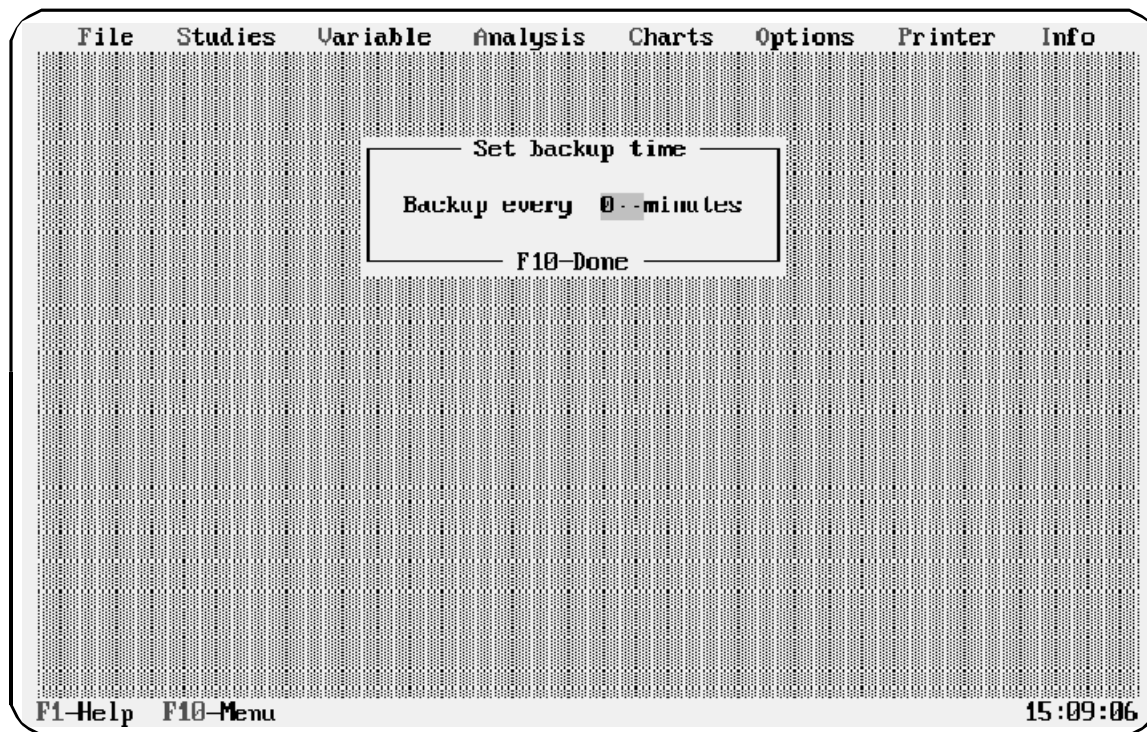
*Meta-Stat* creates backup files whenever you start the program and open a meta-file. You can also create backup files more frequently, by using a timed backup

feature. You might want to do this when you need to make numerous changes during a *Meta-Stat* session.

Follow these steps to use the timed backup feature:

1. Select File/Timed Backup.

*Meta-Stat* prompts you to identify how often you want to make backups:



2. Type a number from 0 to 999. This is the number of minutes after which *Meta-Stat* will create a backup of your meta-file. Select 0 minutes to turn off the timed backup feature.
3. Press F10 when you have finished.

### Recovering Data from Backup Copies

Sometimes, you might want to discard the data in your current *Meta-Stat* data files

and instead use the data in your backup files. For example:

- ! Your current files might be damaged.
- ! You might want to discard recent changes to your data by returning to the backup copy that was created before you made the changes.

Follow the steps below to recover data from backup copies. The commands you use in these steps rename your backup files to be the current data files for your meta-analysis.

1. Quit *Meta-Stat* and return to the DOS prompt.
2. Type the following command:

```
rename <meta-name>.DE! <meta-name>.DEF
```

Replace <meta-name> with the name of your meta-file.

3. Press Enter.
4. Type the following command:

```
rename <meta-name>.MT! <meta-name>.MTA
```

Replace <meta-name> with the name of your meta-file.

5. Press Enter.
6. Start *Meta-Stat* again and open the meta-file.

### Keeping Backups on Diskette

To protect important data, you should keep backup copies of the data on diskette. If your hard disk is ever damaged, you can recover your data from the diskette.

To keep backups on diskette, use one of two methods:

- ! Use the File/save AS option to save the meta-analysis on a diskette. See the section "Saving Under a New Name" earlier in this chapter.
- ! Copy the meta-analysis files, <meta-name>.DEF and <meta-name>.MTA, to a diskette. Use the DOS COPY command to copy the

files.



## Sharing Data with Other Applications

*Meta-Stat* includes two features that allow you to share data with other applications:

- ! The **Export** feature exports your meta-analysis data to ASCII files that can be read by other programs. This is coupled with an **Import** feature which reads meta-analysis data from ASCII files into *Meta-Stat*.
- ! A stand-alone utility **M2SPSS.EXE** which can be used to create ASCII data files and fully labeled include files for SPSS. The SPSS utility is discussed in the next section of this manual.

An ASCII file is a text-only file that contains no special formatting. Most programs can read ASCII files.

### ASCII Files Used for Importing/Exporting

When you export data from a meta-analysis, *Meta-Stat* creates two ASCII files. If you want to import data into *Meta-Stat*, you must create these ASCII files yourself.

- ! A definitions file contains the variables for the meta-analysis. This file is named *<meta-name>.ASD*
- ! A second file contains study data. This file is named *<meta-name>.ASM*

The *<meta-name>* is the name of the meta-analysis.

### Structure of the Definitions File

The definitions file contains variables that are used in the meta-analysis. It has this filename:

*<meta-name>.ASD*

where *<meta-name>* is the name of the meta-analysis.

Each record (line) in the file identifies a separate variable, and the fields in the record are delimited by commas. Alphanumeric fields are enclosed within quotes.

Field	Contents
1	Numeric identifier of the variable
2	Eight-character name of the variable
3	One-character identifier of the variable's type:  B Blocking C Continuous D Discrete E Equation
4	Total length of the variable's data
5	Number of decimal places allowed for the variable's data
6	25-character description of the variable  For blocking, continuous, and equation variables, a   separates the description from additional variable information.

The following example shows the contents of a definitions file:

```

1,"EFFECTSZ","C",8,3,"Effect Size"

2,"UNBIASED","E",8,3,"Unbiased Effect Size | (1 - (3 / ((4 *
TOTAL_N) - 9))) * EFFECTSZ"

3,"EFFSR_GP","D",1,0,"Effect size source | 1=Correlation;
2=T-Statistic; 3=F-Statistic; 4=Chi-Square; 5=Probability
Level; 6=Standardized Difference; 7=Direct Entry; 8=Gain
Scores (parametric)"

4,"EFF_CLTR","D",1,0,"Effect size cluster"

5,"PUB_YR","C",2,0,"Publication Year"

6,"EXP_N","C",10,0,"Experimental Group Size"

7,"CTRL_N","C",10,0,"Control Group Size"

8,"TOTAL_N","E",10,0,"Total Sample Size | EXP_N + CTRL_N"

9,"WEIGHT","E",8,3,"Inverse of the variance |
(2*TOTAL_N*EXP_N*CTRL_N) / ((2*SQR(TOTAL_N)) +
(EXP_N*CTRL_N*SQR(UNBIASED)))"
    
```

Structure of the Study-Data File

The study-data file contains study data. It has this filename:

*<meta-name>.ASM*

where *<meta-name>* is the name of the meta-analysis, up to eight characters long.

Each record (line) in the file identifies a separate study, and the fields in the record are separated by commas. Alphanumeric fields are enclosed within quotes.

Note: Missing data—that is, a variable for which no value is available—are identified by -999999.

The table below shows the structure of the study-data file:

Field	Contents
1	Eight-character name of the study
2	Authors of the study
3	Title of the study
4-end	Data for each variable, separated by commas. The record ends with a carriage return - line feed.  Missing data are identified by -999999

The following example shows the contents of a study-data file:

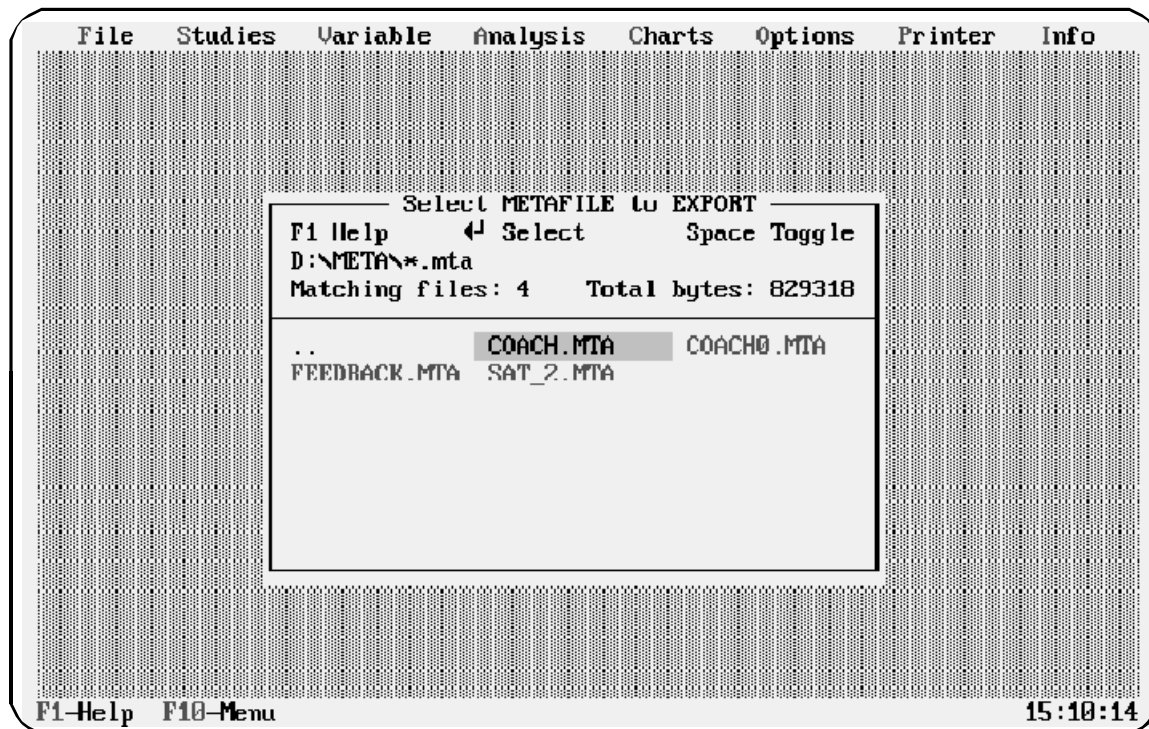
```
"ALLEN","Allen, G. J.,"Effectiveness of study
counseling",0.918,0.909,2,0,67,41,40,81,18.351,2,-999999.00,-
999999,14,3,2,1,4,1,-999999.0,0.0,-999999,-999999,0.0,0.909
"BAJTEL1","Bajtelmit, J. W.,"Test-wiseness and systematic
desensitization",2.50,-999999.000,7,0,68,-999999,-999999,-999
999,-999999.000,5,2.50,3,16,3,2,1,4,1,999999.0,0.0,-999999,-9
99999,0.92,0.000
"BAJTEL2","Bajtelmit, J. W.,"Test-wiseness and systematic
desensitization",0.50,0.490,7,0,72,-999999,25,40,9.118,-99999
9,1.00,2,6,1,2,2,4,2,-999999.0,0.0,-99999,-999999,0.60,0.000
"BAJTEL3","Bajtelmit, J. W.,"Test-wiseness and systematic
desensitization",0.20,0.192,7,0,71,10,10,20,4.977,3,-999999.0
0,-999999,-999999,-999999,2,2,4,2,-99999.0,0.0,-999999,-99999
9,-0.03,0.000
"CALLEN","Callenbach, C.,"The effects of instruction and
practice in content",0200,0.195,7,0,81,15,15,30,7.465,1,
1.00,2,4,1,1,2,4,4,-999999.0,0.0,-999999,-99999,0.51,0.000
```

### Exporting a Meta-Analysis

To export a meta-analysis to ASCII files, follow these steps:

1. Select File/Export ASCII

*Meta-Stat* prompts you to identify the meta-analysis you want to export:



2. Highlight the file you want to export, then press Enter.

*If necessary, first select the directory in which the file is located. For more information, see the section "Changing the Directory" earlier in this chapter.*

*Meta-Stat* creates two ASCII files that hold data from the meta-analysis. For more information about these files, see the section "ASCII Files Used for Importing/Exporting" earlier in this chapter.

## Importing a Meta-Analysis

To import data from ASCII files into *Meta-Stat*, follow these steps:

1. Create the two ASCII files that will be imported. For more information about these files, see the section "ASCII Files Used for Importing/Exporting" earlier in this chapter.

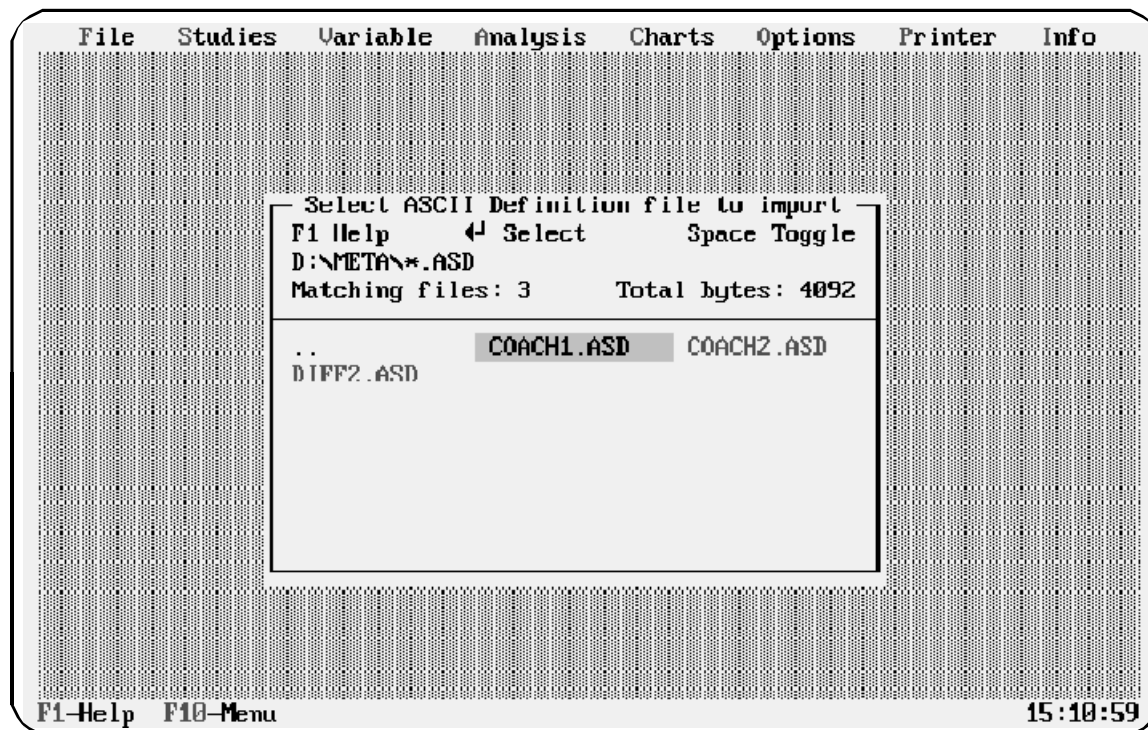
Warning: Use the extension ASD for the definitions file, ASM for the study-data file. For example:

```
SAT.ASD  
SAT.ASM
```

Make sure that you have not used the same name for an existing meta-analysis. For example, if you already have a meta-analysis called SAT, and you import the two files listed above, *Meta-Stat* will overwrite the existing meta-analysis.

2. Start *Meta-Stat*.
3. Select File/Import ASCII

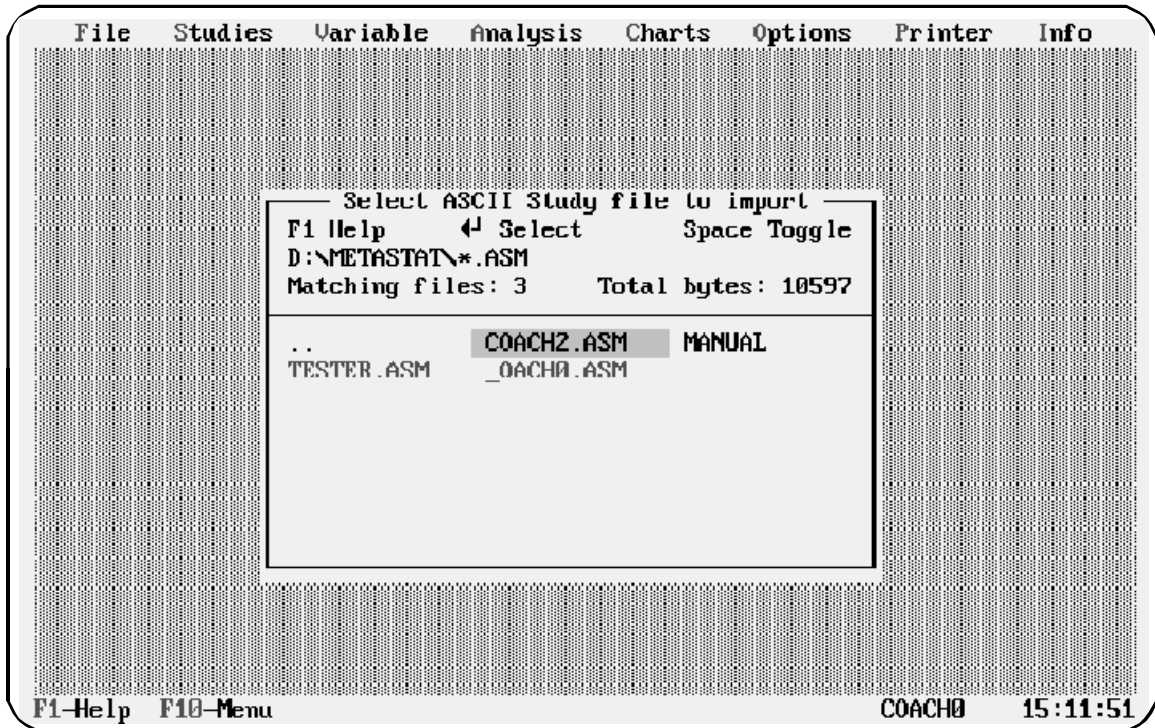
*Meta-Stat* prompts you to identify the definitions file. This is the file that contains variables:



4. Highlight the definitions file you want to import, then press Enter.

*If necessary, first select the directory in which the file is located. For more information, see the section "Changing the Directory" earlier in this chapter.*

5. If your study-data file has a different name from the definitions file, **Meta-Stat** prompts you to identify the study-data file:



6. Highlight the study-data file, then press Enter.

*Meta-Stat* imports the files and creates a meta-analysis.

## Converting a Meta-Analysis for SPSS

*Meta-Stat* can convert the data from your meta-analysis into two files for use with SPSS (Statistical Package for the Social Sciences). Follow these steps:

1. Change to the directory where you installed *Meta-Stat*.
2. Type this command from the DOS prompt:

```
M2SPSS <meta-anal ysis>
```

where <meta-anal ysis> is the name of the meta-analysis you have created with *Meta-Stat*.

3. Press Enter.

*Meta-Stat* creates two output files: <meta-anal ysis>.INC contains variable definitions (referred to as an 'Include file' by SPSS), and <meta-anal ysis>.DAT contains study data.

4. Check your screen for errors. The most common error occurs when the .INC file refers to a variable that is not defined until later in the file. Use your word processor to move the variable definition before the offending error.
5. Use the two files as input to SPSS. Consult your SPSS documentation for more information.

The .DAT file contains the data for all the variables in your meta-file, including the data derived from equations and blocking variables. If you are missing CTRL\_N and EXP\_N, for example, but have recorded TOTAL\_N, M2SPSS will use your value in recording TOTAL\_N, not the equation. Thus, M2SPSS lets you analyze the identical dataset.

The functions used by meta-stat to provide the equation and blocking variable results are also provided in the include file. They are commented out with a leading '\* ' so as not to override the recorded values. If you want to use the equations, use your word processor to remove the equations.