Files You Cannot Copy. There a certain kinds of files that appear in the Workspace Menu but cannot be copied elsewhere. Among these are invisible files, files without extensions (the UR-2 file which activates the Ultimate ROM II, for example), and files whose extensions do not match the type of file. Included in this last group are files like the WSPECT.DT file of Write ROM; though a machine-language file, this file does not have the CO extension characteristic of machine-language files.

Copying Files from Disk

Files on disk can be copied—

- to a directory in the RAM disk
- or to the workspace

If you are going to copy files from a portable disk drive, make sure that the drive is connected to your Tandy computer and that the drive is turned on and contains the disk from which you want to copy files. If you are going to copy files from a desktop computer, connect that computer to your Tandy computer and start the DESK-LINK program.

In the Disk Menu place the bar cursor over the file to be copied or tag several files to be copied at once. Press [F1] (Copy). The function key prompts then change to reveal three new options. Press—

[F1] (Ram)	to copy to a directory in the RAM disk
[F2] (Work)	to copy to the workspace
[F8] (Quit)	to abandon the copy operation

Once you press [F1] or [F2] the procedures for copying files are exactly like those for copying files from the workspace. See *Copying One File at a Time* and *Copying Tagged Files* on page 2-27. Also see *Copying Over Files*, page 2-26.

Backing Up the RAM Disk

The backup option in the RAM Disk Menu lets you back up all the files in the RAM disk or in just one of its directories. The files can be backed up on a 3½-inch disk in the portable disk drive or, through DESK-LINK, on a desktop computer.

Before you can back up files to the portable disk drive, the drive must be turned on and connected to your Tandy computer. If you are backing up files to a desktop computer, it must be connected to your Tandy computer and the DESK-LINK program must be running.

It might be worth your time to look at the Disk Menu to see if the disk to which you will backup your RAM disk files has room for more files. (Check the number following Free.) Should the disk fill before the operation is complete you will see a message informing you of that fact. Replace the disk with another; then press any key to resume copying. If you insert an unformatted disk, you will be asked whether you want it formatted; press any key and the disk will be formatted and the copy operation will continue.

To back up a single directory log onto that directory before beginning the backup operation. It does not matter which directory you are logged onto when you back up the entire RAM disk.

In the RAM Disk Menu press [F6] (Bkup). In response to this prompt—

```
Current directory or All files  C/A
```

press [C] to back up only the current directory; press [A] to back up the entire RAM disk.

As the copy operation proceeds you will see a message indicating which file is being copied at the moment and from which directory. You will also see this message:

Working. When both of these messages disappear, the operation is complete.

By backing up the RAM disk to a desktop computer you will preserve the directory structure of your files as it exists on the RAM disk. Any directories not on the desktop computer when you start the process will be created as the copy process proceeds. The directory structure is not preserved, however, when you back up the RAM disk to a portable disk drive.

There are certain kinds of files that will not be copied as part of the backup operation. These are the same files that are not copied from the RAM disk by the Copy function key; see page 2-26.

Macros

Macros allow you to reduce several keystrokes to just two. Macros are not essential to the operation of the BOOSTER PAK, but they can save you time and effort on repetitive tasks.

As an example, let's say that you use T-Word or some other word processor to print files on a regular basis. You could define a macro to handle this process for you. After moving to the appropriate directory and loading the appropriate environment, you can print a file simply by placing the bar cursor over the name of that file and executing the macro.

How Macros Work

Macros in the BOOSTER PAK can be defined for [ENTER] in combination with one other key. To execute a macro you will select a file and press that key and [ENTER].

Since [ENTER] is always part of a macro, the first step in the execution of a macro is to load the selected file into the workspace. What happens then depends on whether there is a ROM-based program associated with that environment.

If there *is* such a program the selected file is loaded into the workspace and the ROM-based program is run. Then the macro takes control. Whatever keys you have defined for the macro now operate the program for you: function keys are activated, the bar cursor is moved, arrow keys are pressed, and so on.

If there is *not* a ROM-based program associated with the current environment the BASIC or machine-language program selected by the bar cursor is loaded into the workspace and run. The macro then takes control, operating

the program according to the keystrokes you have defined for that macro. (Unless the current environment has a ROM-based program, there is little point to using macros with data files; the macro would merely open that file in the TEXT program and enter whatever keystrokes are defined for that macro.)

Once a macro is finished, the program takes over. When you exit the program, you will return to the RAM disk and the file selected by the bar cursor when you executed the macro will be copied back to the RAM disk along with any changes you made in that file in the meantime.

When you execute them, macros are stored in the keyboard buffer of the Tandy computer. Certain programs (like Write ROM and Lucid), however, empty the keyboard buffer when they are run. You cannot use macros with such programs.

Defining Macros

There are certain rules that govern the definition of macros:

- Each macro is associated with a particular environment, and no more than 4 macros can be defined for each environment.
- Macros can be defined for [ENTER] and one of these keys: [CTRL], [SHIFT], [GRPH], and [CODE].
- No more than 14 keystrokes can be defined for each macro.
- When defining a macro, you can include any of the letter and number keys, the function keys, the arrow keys, [ENTER], [BKSP], [TAB], [ESC], and the [SHIFT] and [CTRL] keys in combination with other keys.

1. The first step in defining a macro is to determine exactly what operations you want it to perform. Then

go through these operations yourself, making notes of the keystrokes you want the macro to perform for you *once a program is running*.

Example: To use a macro to print a file through T-Word on the Ultimate ROM II chip, run the Ultimate ROM II with a file you want to print. The bar cursor in the Ultimate ROM II menu now selects the T-Word program: press [ENTER] to run T-Word. (This will be the first keystroke for this macro.) In the T-Word file-selection screen the file to be printed appears just to the right of the one selected by the bar cursor: press [SPACE] or the [→] arrow key and then [ENTER]. In the T-Word print menu now on the screen, select the Prnt function key to print: press [F5].

2. Return to the directory of the RAM disk where you want to use the macro. *Make sure that the environment in which you want to use this macro is loaded.*

3. Press [M]. You will then see a message telling you to press one of the four macro keys and then [ENTER]. Hold down [CTRL], [SHIFT], [GRPH], or [CODE] and press [ENTER]. You have just selected the macro key to be defined.

4. The screen now shows these prompts:

   Current:
   New Macro:

   If this is the first time you have defined this macro, there will be nothing after the Current prompt. Once you have defined this macro, however, you will find its current definition here. To retain the current definition press [CTRL]-[C].

   To define a new macro—or to redefine an existing one—type the keystrokes you want the macro to perform. Type as many as 14 keystrokes. When you have finished press [CTRL]-[C].

If you make a mistake press [CTRL]-[C] and resume with the previous step.

For the most part the screen will display the keystrokes you enter just as you might expect: f2 for [F2], A for [SHIFT]-[A], → for [→], and so on. Other keystrokes are less obvious: ^M for [ENTER], ^I for [TAB], ^[for [ESC], for instance.

Example: To define a macro for the T-Word printing operation suggested in step 1, press [ENTER], [SPACE], [ENTER], and [F5] or [ENTER], [→], [ENTER], [F5]. This will appear on the screen like this: ^M ^Mf5 or ^M→^Mf5. Now press [CTRL]-[C] to save the definition.

Using Macros

To use a macro be sure that you have logged onto the directory containing the environment in which you created that macro. Then load that environment.

Place the bar cursor over a file name. Then hold down [CTRL], [SHIFT], [GRPH], or [CODE]—whichever you have defined for that macro—and press [ENTER].

If the macro does not work as expected, you may have to repeat step one in the definition process, making sure that the keystrokes you defined are the ones you want performed in the program. To correct your definition, return to the RAM disk. In the directory and environment for that macro press [M]; then hold down whichever key you defined for that macro and press [ENTER]. Check the current definition; to enter any changes you must start fresh. Then press [CTRL]-[C] to save the definition.

Section 3

Accessing Files through TEXT and BASIC

CHRIS FEENEY

Where to Look in Section 3

What it means to access files in TEXT and BASIC. . . . . page 3-1
How to designate the file to be accessed. . . . . page 3-2
How to access files while in TEXT. . . . . page 3-3
How to access files through BASIC . . . . . page 3-4

CHRIS FEENEY

Accessing Files through TEXT and BASIC

There is a part of the BOOSTER PAK software which gives you access to files in various locations whenever you are working in either the TEXT or the BASIC application built into your computer.

The files to which you have access may be on disk in either a 3½-inch portable disk drive or (through the DESK-LINK program) a desktop computer. They may also be in the RAM disk of the BOOSTER PAK itself. (Remember that while in either TEXT or BASIC you are working in the BOOSTER PAK workspace.)

Accessing files is a two-way street: information can be transferred from the workspace to disk (or RAM disk) or vice versa, from disk (or RAM disk) to the workspace.

While you are working on a file in TEXT, for example, you can save that file directly to the RAM disk—a good way to ensure against losses in the event of a cold start. You can also load another file (from a portable disk drive, for example) directly into the file you are working on; this is a good way to add boilerplate or to join two files you no longer want separate.

The possibilities open to anyone with a mind for programming in BASIC are more numerous. Through BASIC you have access to large data files stored in the RAM disk or a desktop computer; these may be files that are too large to fit into the workspace of your laptop computer. From within a BASIC program, too, you can view a directory of files stored in the RAM disk or a desktop computer.

Designating the Location of Files

Since the BOOSTER PAK gives you access to files in three different locations—portable disk drive, RAM disk, and (through DESK-LINK) desktop computer—you must designate the *location* of the file you want access to along with its name. Designate location *before* file name.

Accessing Files on Disk—Ø: or 1:

With only one exception you will always type Ø: to designate a file stored on disk in either a portable disk drive or a desktop computer. The exception applies to owners of the Tandy Portable Disk Drive 2. Since this disk drive stores files in two banks—Ø and 1—you must designate which bank you want access to: type Ø: for access to bank Ø, 1: for access to bank 1.

Examples: To access a file named LET887 on disk in the original version of the Tandy Portable Disk Drive, type Ø:LET887. To access a file of the same name in bank 1 of the Tandy Portable Disk Drive 2, type 1:LET887.

Accessing Files in the RAM Disk—R:

To access a file in the RAM disk of the BOOSTER PAK, type R: followed by the file name. This designation will give you access to any file in the *current* directory; if you want access to a file in a different directory, follow this format:

```
R:/DIR/FILENAME
```

where DIR is the name of the directory to which you want access. Type / before and after the directory name.

Examples: Type R:TEXT1B to access the TEXT1B file in the current directory. Type R:/UR-2/TEXT1B to access the TEXT1B file in the UR-2 directory (not the current directory).

Accessing Files in TEXT

While working on a file in TEXT you can—

- save the file to disk or RAM disk
- load another file from disk or RAM disk into the current file

Saving Files—F3

Press F3 to save a TEXT file to disk or to RAM disk.

When you press F3, this prompt appears:

```
Save to:
```

Type the location (0:, 1:, or R: and the directory, if applicable) and then the file name. There is no need to type the DO extension. Press ENTER.

If you press ENTER without typing a file name, you will abandon the process.

Caution: If you type a file name that already exists in the location you have specified, the TEXT file you are working on will overwrite the file in that location with the same name.

Loading Files—F2

Press F2 to load another TEXT file into the current file; the loaded file will be placed at the end of the current file.

When you press F2, this prompt appears:

```
Load from:
```

Designate the location (0:, 1:, or R: and the directory, if applicable) and then the file name. There is no need to type the DO extension. Then press ENTER.

If you press ENTER without typing a file name, you will abandon the process.

Accessing Files in BASIC

The BOOSTER PAK software gives access to files on disk or in the RAM disk through standard BASIC commands. Whenever you use an input or output command, remember to precede the file name with the appropriate designation for location. (See page 3-2.)

Note: When you are accessing files on disk (in a portable disk drive or a desktop computer) you can have only *one* file open at a time. Close that file *before* opening another. In practice, this means that you must separate your read and write commands. Once you have opened a file, you cannot use any commands other than CLOSE or variations of INPUT and PRINT. When you are accessing files in the RAM disk you may open as many files at one time as you wish.

The following is a list of some of the BASIC commands you can use with the BOOSTER PAK.

CLOSE	Closes a file *Example:* CLOSE #1
EOF	Determines if the end of a sequential file is reached *Example:* IF EOF(1) THEN GOTO 4600
INPUT$	Returns a specified number of characters from a file *Example:* A$=INPUT$(5,#1)
INPUT#	Reads data from a file *Example:* INPUT#1,A$,B$,C$
KILL	Kills a file in the specified location *Example:* KILL "0:file.BA"
LFILES	Lists files on disk in portable disk drive or desktop computer

LFILES Ø LFILES 1	Lists files in bank Ø (LFILES Ø) or bank 1 (LFILES 1) of Tandy Portable Disk Drive 2
LFILES R	Lists files in *current* directory of RAM disk
LFILES "DIR"	Logs onto DIR directory of the RAM disk and lists files in that directory *Example:* LFILES "MISC"
LINE INPUT#	Reads a string of characters terminated by a carriage return *Example:* LINE INPUT#1 , A$
LOAD	Loads a BASIC program from disk or RAM disk into memory *Example:* LOAD "R:file . BA"
LOADM	Loads a machine-language program into memory *Example:* LOADM "1:file"
MERGE	Merges two BASIC programs *Example:* MERGE "Ø:file"
NAME	Renames a file *Example:* NAME "Ø:old" AS "Ø:new"
OPEN	Opens a file for input or output; OUTPUT, INPUT, APPEND modes are available for use *Example:* OPEN "Ø:file"FOR OUTPUT AS 1
PRINT#	Prints data to an open file *Example:* PRINT#1 , A$, b$
PRINT# USING	Prints formatted data to an open file *Example:* PRINT#1 USING "## . ###";A

RUN	Loads a BASIC program and begins execution *Example:* RUN "Ø:file"
RUNM	Loads and runs a machine-language program *Example:* RUNM"R:file"
SAVE	Saves a BASIC program to disk or RAM disk. (Include a .DO extension, to store the program in an ASCII format; omit any extension or type .BA to store in binary format.) *Example:* SAVE"Ø:file.BA"
SAVEM	Saves a machine-language program to disk. Specify start location, end location, and execution address. *Examples:* SAVEM"Ø:file",6ØØØØ,6Ø9ØØ,62ØØØ BSAVE"Ø:file",6ØØØØ,9Ø1,6ØØØØ

Specifications

Physical

Dimensions: 11 3/4" (L) × 8 3/8" (W) × 1 1/8" (H)
(30 cm × 21.5 cm × 3 cm)

Weight: 1 lb. 1 oz. (base unit, without options)
(486 g)

Environmental Conditions

Operating

Temperature: 35° F to 115° F (2° C to 46° C)

Humidity: 30% to 80% non-condensing

Storage

Temperature: -10° F to 140° F (-23° C to 60° C)

Humidity: 20% to 90% non-condensing

Non-Operating Power Requirements

Source: Built-in 3VDC 1.2A lithium battery for RAM backup

Usage: 10μA with 136K RAM (estimated battery life 10 years)
50μA with 2MB RAM (estimated battery life 2.78 years)
Measurements taken at room temperature (68° F, 20°C)

Operating Power Requirements

Source: Host computer (Model 100/102)
5VDC at bus.

Usage: 5mA–10mA depending on configuration and activity (for an increase of the host computer's power usage of 10% to 15%)

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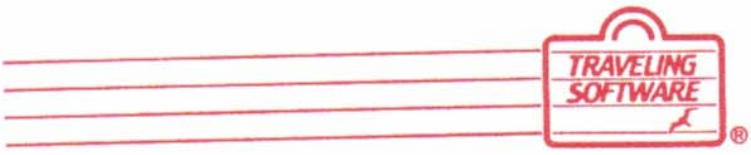

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