

**TA** Instruments

Thermal Analysis & Rheology



# ***File Utilities Manual***

PN 925612.001 Rev. B (Text and Binder)  
PN 925612.002 Rev. B (Text Only)  
Issued August 1999

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## Using This Manual

- CHAPTER 1** Describes the purpose and features of the File Utilities software.
- CHAPTER 2** Describes how to install the software onto your system.
- CHAPTER 3** Provides basic reference information, including how to load NT, name files, use wild cards to designate groups of files with similar names, and interpret the command formats in Chapters 4 and 5.
- CHAPTER 4** Describes how to use the commands to obtain compatibility between *Thermal Advantage/Solutions* software in NT and TA RMX Operating System, as well to obtain file importation capability into other software packages.
- CHAPTER 5** Provides more advanced operations such as converting TA data in one step, removing points from your data, keeping track of error conditions in batch files, and networking.

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**CHAPTER 6** Describes the error messages.

**INDEX** Lists the page numbers of important topics for your reference.

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# CHAPTER 1: Introduction

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The TS File Utilities package is a set of special commands that enable you to manipulate TA RMX Instrument Thermal Analysis data and report files through the computer's native operating system. This provides compatibility between *Thermal Advantage/Thermal Solutions* software and TA Operating System in RMX. In addition, the program provides file importation capability into other software packages (*e.g.*, spreadsheet programs).

The TS File Utilities disk contains nine programs that enable you to:

- Obtain data file compatibility between *Thermal Advantage/Thermal Solutions* files and TA RMX files.
- Convert TA data files in binary format to ASCII files.
- Conduct maintenance routines of TA RMX files through Windows or NT.

Once the TA RMX files are converted, you can use them as you would any normal file.



## CHAPTER 2: Installation

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### Installing File Utilities on Your System

The File Utilities software is automatically installed in Windows® NT as part of the *Thermal Advantage/Solutions* installation during a “Typical” installation along with the other software components. Or, you may choose the “Custom” installation option to specifically select this component for installation. Consult the Getting Started Guide for further details. The TS File Utilities commands reside in the TA\RMX Utils directory where the software was installed..



# CHAPTER 3: Basic Reference Information

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## *Overview*

This chapter describes:

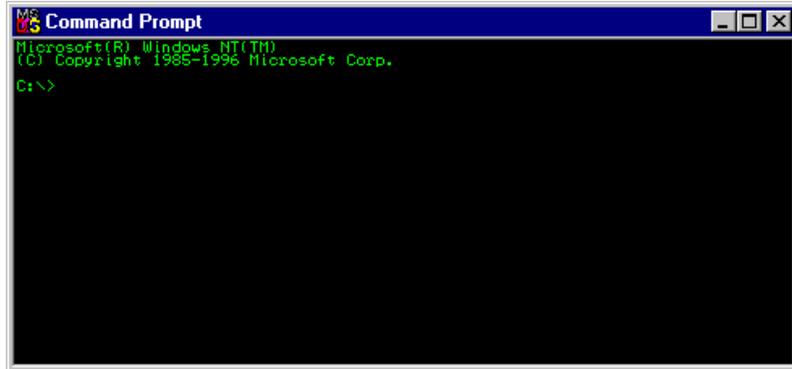
- How to execute the TS File Utilities commands
- The file-naming conventions for NT, DOS, and the TA RMX Operating System
- How to use “wild cards” when entering commands
- How to interpret command formats.

If you need information on any of these topics, please read the appropriate section before going on to Chapter 4.

## *Opening a Command Prompt Window*

The File Utilities commands operate using a Command Prompt window. To access the window, follow these instructions:

1. While in NT, select **Programs/Command Prompt** from the Start menu. The current drive prompt, typically [C:\], will appear in the upper left corner of the window as seen in the figure on the next page.



*Figure 3.1*  
*Command Prompt Window*

2. Change to the TS File Utilities directory (e.g., CD \TA\RMXUTILS). You can now enter one of the TS File Utilities commands.

## File-Naming Conventions

Whenever you create a new file, you must assign a name to it. There are two parts to a filename: the name and the optional extension, which are separated by a period (.). Table 3.1 on the next page shows the file-naming conventions for NT, DOS, and TA RMX files.

**Table 3.1**  
**File-Naming**  
**Conventions**

	DOS Files*	TA RMX Files
Number of Characters (Name)	1 to 8	1 to 10
Number of Characters (Extension)	0 to 3	0 to 3
Valid Characters	<p>All alpha- numerics and the following symbols:</p> <p>~ ' ! @ # \$ % ( ) - _ { } ' ^</p> <p>Spaces are not valid.</p>	<p>All alpha- numerics and the following symbols:</p> <p>~ ' ! @ # \$ % ( ) - _ { } ' ^</p> <p>Spaces are not valid.</p>

\* NT allows up to 254 characters and can contain any number of periods. However, TA DOS Specialty Data Analysis programs require DOS file-naming conventions.

**NOTE:**

When using TSGET, filenames with more than 8 characters will be truncated to 8 characters. Make certain that no conflicts occur.

## Wild Card Characters

Wild card characters (?, \*) take the place of one or more characters in a filename. This saves you time when you are using an NT or TS File Utilities command with a group of similar filenames. Refer to the NT online help index for further information.

## Using the Command Formats

Chapter 4 provides a **command format** for each of the TS File Utilities commands. A command format indicates the mandatory and optional specifications that you enter along with a command.

For example, imagine a command called XXX. You can direct the XXX command to operate on files in a specific drive by following the command with a drive designation (*e.g.*, A:, B:, or C:). For example:

XXXA:

directs the XXX command to drive A. Thus, one of the specifications in the command format for XXX is the optional drive designation:

XXX[drive:]

The drive designation is shown in square brackets ([ ]) to tell you that it is an optional specification. If no drive designation is specified, the current drive is used. Before you begin, determine the drives where your RMX and *Thermal Advantage/Solutions* data reside. Typically, when using this program, the RMX operating system data files reside on the floppy drive A.

The hypothetical XXX command also has a mandatory specification: it operates on files, so you must designate a filename. For example:

```
XXXFILE1
```

tells the computer to execute the command XXX on the file FILE1. Thus, another specification in the command format for XXX is the filename designation:

```
XXX <filename>
```

The filename designation is shown in angle brackets (<>) to indicate that it is a mandatory specification.

```
XXX [directory\]
```

Two additional specifications that you will see in this manual are directory and subdirectory specifications. The TA RMX disk partition is divided into separate directories (*i.e.*, DATA and REPORT), but the directories are entirely independent of each other. The NT disk partition can be divided into multiple subdirectories that branch from a main or parent directory. For example TA\RMX Utils\, RMX Utils is a subdirectory of TA.

The punctuation and spacing in the commands must follow the format exactly. When you specify a drive, you must always follow it with a colon (:). Directory and subdirectory specifications are followed by a back slash (\), not a front slash (/).

Combining all possible specifications for the command XXX, the format for this command becomes:

```
XXX [path]<filename>
```

Path is used to include the drive and the file's directory and subdirectory information in a command. This nomenclature will be used throughout the manual.

The command format abbreviations and symbols are summarized in Table 3.2.

**Table 3.2**  
**Command Format**  
**Abbreviations**  
**and Symbols**

dir\ drive: fn path  subdir\ ◇ [] *  ?	directory disk drive designation filename drive, directory, subdirectory subdirectory (NT only) mandatory specification optional specification wild card character which substitutes for multiple characters wild card character, which substitutes for a single character
--	---

**NOTE:**

Remember to omit brackets when typing a command.

# Chapter 4: File Utilities

## Commands

---

### *Overview*

This chapter describes the File Utilities commands and lists their DOS equivalents where applicable. The table below summarizes those commands and lists which TA files (DOS or RMX) they apply to.

***Table 4.1***  
***File Utilities***  
***Commands***  
***Applicable to NT***  
***Data File Formatted***  
***File Only***

Command	Summary
TSB2A	Converts TA NT binary formatted files to ASCII format.
TSA2B	Converts TA NT ASCII formatted files to binary format for use in TA data analysis programs.

**Table 4.1**  
**File Utilities Commands**  
**Applicable to RMX**  
**Data File Formatted**  
**File Only**

Command	Summary
TSDIR	Displays directory listing of TA RMX files.
TSGET	Copies TA RMX binary files to NT directories.
TSPUT	Copies TA NT binary files to RMX directories.
TSDEL	Deletes TA RMX files.
TSCOPY	Copies TA RMX files from one drive to another ( <i>i.e.</i> , RMX partition of hard drive to TA RMX-formatted floppy diskettes).
TSATTRIB	Displays or changes archived status of RMX files.
TSSLEEP	Utility used with TA File Link to archive RMX files.

**NOTE:**

Do not attempt to use standard file commands on TA RMX-formatted disks. This usually results in meaningless strings of control characters or the message "File not found," depending on the command.

◆ **CAUTION:**

Using standard file commands such as DEL and COPY on a TA RMX-formatted diskette can corrupt the diskette.

## Operating Tips

The following is a list of tips that will help you use the File Utilities program.

- The terms “TA RMX disk” and “NT disk” refer to diskettes formatted for the TA RMX and NT operating systems. For instructions on formatting RMX disks, please see Chapter 3 of the *TA Instruments Thermal Analyst Operator’s Manual*.
- TS File Utilities commands TSGET, TSDIR, TSCOPY, TSDDEL, TSATTRIB, and TSSLEEP do not apply to *Thermal Advantage/Solutions* data files. Use the NT equivalent command where applicable.
- All NT and File Utilities commands must be executed with the ENTER key.
- The TS File Utilities commands do not operate on TA program files.
- A help message is displayed for any TS File Utilities command by following the command with a “/?” entry.  
Example: TSDIR /?
- The version is displayed for any TS File Utilities command by following the command with a “/v” entry.  
Example: TSDIR /v

## *Basic Steps for Converting RMX Format Files to NT Compatible Files*

Listed below are the basic steps required to obtain compatibility between RMX files and *Thermal Advantage/Solutions* Software in NT:

- Copy RMX data to RMX-formatted floppy disks.
- Within NT, select Programs/Command Prompt from the Start menu.
- Change to the TS File Utilities directory. Type **CD C:\TARMXUTILS** then press enter.
- Insert the RMX-formatted floppy disk, into the disk drive of the NT computer.
- At the command prompt, type **TSDIR A:** then press enter. A listing of the RMX data contained on the floppy will be displayed.
- Next use the command **TSGET** to convert the files to NT format. You will need to specify a location on the computer hard drive to store the converted files. [TSGET A:\\*.\* C:\TA\DATA\RMX

**NOTE:**

When using **TSGET**, filenames with more than 8 characters will be truncated to 8 characters. Make certain that no file conflicts occurs.

## Converting Binary Files to ASCII Format

<b>Command</b>	TSB2A
<b>NT Equivalent</b>	None
<b>Function</b>	TSB2A converts TA binary <b>data</b> files in NT directories to ASCII (alphanumeric) format. This step is used only for <b>data</b> files; TA <b>report</b> files are already in the ASCII format.

### NOTE:

TSB2A works only with binary TA NT data files. Thus, for TA RMX files you must perform TSGET on a data file before you run TSB2A. Furthermore, do not attempt to convert NT binary files that do not contain TA data to ASCII format with TSB2A.

**Usage** TSB2A [/O] [/S] [path][filename]  
[[path][filename]]

/O Overwrite existing files  
/S Spread sheet compatible output  
file; signal name for column  
headings, comma delimited data

**Examples** TSB2A C:\BINARY\\*.\*  
C:\ASCII\

This statement will convert all files in the binary subdirectory and put the converted files in the ASCII directory. Use of the wild card \* requires the converted files to be placed in a different directory.

## Converting ASCII Files to Binary Format

<b>Command</b>	TSA2B
<b>NT Equivalent</b>	None
<b>Function</b>	To convert an TA ASCII file into binary format. This binary file can be placed (using TSPUT) back into the TA RMX partition, if desired, for analysis and plotting with TA RMX data analysis programs.

◆ **CAUTION:**

TA Data Analysis programs require the data to be in a certain format. Excessive editing of an ASCII data file can cause the file to work incorrectly with the TA Data Analysis software.

<b>Usage</b>	TSA2B [/O] [/S] [path]<filename> [[path]<filename>]
/O	Overwrite existing files
/S	Spread sheet compatible input file: signal name, enclosed in double quotes, for column headings; comma or space delimited data, one point per row.

It is necessary to use different source and destination paths if wildcards ? or \* are used in the source filename.

**Example** TSA2B C:\ASCII\\*.\*  
C:\BINARY\

This command will convert all files in the ASCII directory to binary and put the converted files in the BINARY directory.

**NOTE:**

You should change either directories or filenames to prevent overwriting or losing TA data when not specifying a new filename.

## Obtaining Directory Listings

**Command** TSDIR

**NT  
Equivalent** DIR

**Function** TSDIR displays a directory listing of TA RMX data and report files. If you request a TSDIR of the hard drive, you will receive a listing of the files in the TA RMX partition only.

**Usage** TSDIR [/A] [/A-] [/B] [/P] [/W]  
[[path][filename]]

/A Unarchived files only

/A- Archived files only

/B Brief listing, filenames  
only

/P Pause after each page

/W Wide display

**Examples** TSDIR A:

Gives a directory listing of all the data files on the TA RMX-formatted disk.

TSDIR A:LNCA.\*

Gives a directory listing of all TA RMX files with the name LNCA in the DATA directory on drive A.

TSDIR A:\REPORT

The command lists the files in the REPORT directory on the TA RMX-formatted disk.

Note that the back slash (\) following the directory name is necessary if you include a file-name:

TSDIR A:\REPORT\LNCA.\*

**Switch** /W

If you include the /W (wide) switch:

TSDIR A: /W

the screen will display five files horizontally per line.

Note that file size, date, and time information are not included in the /W directory.

**Switch**     /B

If you include the /B (brief) switch: TSDIR A: /B, the screen will display only the filenames. This switch is often used in combination with the /P (pause) switch because the listing will often go beyond one page.

**Comments** Note that the file size, date, time, and archive information are not included in the /B directory.

Two key strokes you may find useful when using the TSDIR command are the PAUSE key and CTRL-C:

PAUSE key - If a directory listing is longer than one screen length, you can pause the screen display by pressing PAUSE. To resume scrolling, press any key.

CTRL-C - (Hold down the CONTROL key, then press C.) This aborts the TSDIR command. This command is useful when the screen is displaying a long list and you do not want to look at the entire list.

## Copying TA RMX Files to Windows

<b>Command</b>	TSGET
<b>Standard Equivalent</b>	COPY
<b>Function</b>	The TSGET command copies TA files from an RMX floppy to a Windows partition of the hard drive. This allows RMX files to be translated to a standard file format for easier storage and retrieval.
<b>Usage</b>	<p>TSGET [/A] [/A-] [/M] [/O] [/Q] [path]&lt;filename&gt; [[path]&lt;filename&gt;]</p> <p>/A Unarchived files only  /A- Archived files only  /M Copy unarchived files and mark archived  /O Overwrite existing files and mark archived  /Q Query user for confirmation</p>

If you specify the REPORT directory, you must also specify a source filename. To copy all files in either directory, simply use \*.\* as the source filename.

**NOTE:**

If the source file being copied from the TA RMX partition has a filename of more than eight characters, the filename will be truncated to 8 characters. Make certain that overwriting will not occur.

---

<b>Default Values</b>	source drive:	current
	source RMX directory:	DATA
	target drive:	current
	target directory:	current
	target filename:	source filename

**Examples** TSGET C:TADATA D:\TA\DSC\

Copies the TA file TADATA from the default (DATA) directory of the TA RMX partition of drive C to the DSC NT subdirectory of the TA directory on drive D.

TSGET A:\REPORT\\*.\*

Copies all files in the TA REPORT directory on the RMX disk in drive A to the default NT directory of the default disk.

TSGET A:\REPORT\TADATA  
TA\FILE

Copies the file TADATA from the RMX REPORT directory on drive A to the subdirectory TA on an NT disk in the default drive, renaming the target file as FILE.

**Comments** When using wild cards, note that

TSGET A:\\*.\*

copies only the files in the default (DATA) directory; the REPORT directory must be specified:

TSGET A:\REPORT\\*.\*

## Copying NT or DOS Files to TA RMX

**Command** TSPUT

**NT  
Equivalent** COPY

**Function** TSPUT copies NT or DOS files containing TA data to the RMX partition of the disk.

**NOTE:**

Since ASCII files cannot be read by most TA Data Analysis programs, files that have been converted to ASCII with TSB2A should not be returned to RMX with TSPUT until they are converted to binary using TSA2B.

◆ **CAUTION:**

If you modify a TA file, the file may no longer work with the Data Analysis programs. The following portions of data files should not be changed:

- **MODULE\_**the module type
- **ACTIVE / CLOSED \_** file status
- **VERSION\_** file version number
- **NSIG\_**the number of signals
- The formfeed character at the end of the parameter block
- The number-of-signals byte following the form-feed character
- The 80287 floating-point format.

**NOTE:**

TSPUT removes the method log from files generated with the *Thermal Solutions* software.

**Usage** TSPUT [/A-] [/O] [/Q]  
[path]<filename>[[d:][path]<filename>]  
/A- Mark copied files as archived  
/O Overwrite existing files  
/Q Query user for confirmation

The above command format copies the source file from the NT partition of drive C to the TA RMX partition of drive C.

If you specify a source subdirectory, you must also specify a source filename. To copy all files in a subdirectory, simply use \*.\* as the source filename.

**Default Values**

source drive:	current
source directory:	current
target drive:	current
target RMX directory:	DATA
target filename:	source filename

**Examples** TSPUT TA\\*.\* A:

Copies all files in the TA subdirectory of the current drive into the RMX default DATA directory of the TA RMX-formatted disk in drive A.

---

TSPUT TA\FILE.1 A:REPORT\  
FILE.2

Copies the binary NT file FILE.1 from the TA subdirectory on current drive and creates a new file, FILE.2, in the REPORT directory of a TA RMX-formatted diskette in drive A.

**Comments** When using wild cards, note that

TSPUT \*.\* A:

Copies only the files in the current NT directory; all other directories must be specified (*e.g.*, TA directory: TSPUT TA\\*.\* A:)

## Deleting TA Files

**Command** TSDEL

**NT  
Equivalent** DEL

**Function** TSDEL deletes TA data and report files from the RMX partition of the disk.

**Usage** TSDEL [/Q] [d:][path]<filename>  
  
/Q Query user for confirmation

**Examples** TSDEL C:FILE.1

Deletes the file FILE.1 from the default directory on the RMX partition of drive C.

TSDEL A:REPORT\FILE.1

Deletes the file FILE.1 from the REPORT directory on the TA RMX -formatted disk in drive A.

**Switch** /Q

If you include the /Q (query) switch, the command will query you before deleting the file. The /Q parameter is especially useful when you are deleting several files at once using a wild card:

TSDEL A:FILE.\* /Q

The above command will go through a list of files with the same name (FILE) and any extension (.\* ) and prompt before deleting each file.

For example:

A:FILE.1 Delete it? (Y/N)  
A:FILE.22 Delete it? (Y/N)  
A:FILE.333 Delete it? (Y/N)

Respond with Y, N, or Q (quit). The command will continue to prompt you until it reaches the last file in the set unless you respond with Q, which aborts the TSDEL command.

---

**Comments** Use caution when using wild cards with TSDEL. This command deletes all TA files from the default RMX directory and drive. It is good practice to obtain a directory listing (with TSDIR) before deleting groups of files with wild cards.

## *Copying TA Files Between TA Disks*

**Command** TSCOPY

**NT  
Equivalent** COPY

**Function** TSCOPY copies RMX TA files from one TA disk to another. The command is executed from NT and is generally used to copy a TA file from a TA RMX-formatted floppy disk to the TA RMX partition of the hard disk and vice versa.

**Usage** TSCOPY [/O][/Q][d:][path]  
[filename][[d:][path][filename]]

/O Overwrite existing files  
/Q Query user for confirmation

<b>Default Values</b>	source drive:	current
	source RMX directory:	DATA
	target drive:	current
	target RMX directory:	DATA
	target filename:	source filename

**Examples** TSCOPY A:Testfile.001 C:  
Copies the binary TA RMX file “Testfile.001” to the DATA subdirectory in the TA RMX partition of drive C.

```
TSCOPY Testfiles.001
Testfile.001
```

This example copies the nine-character file Testfiles.001” to the eight-character file “Testfile.001” on the RMX partition of the current drive. [RMX drive must be the current drive.]

This command also does not change the original filename nor the data.

```
TSCOPY A:\REPORT\*.*
C:\REPORT\
```

This command will copy all the report files from a TA RMX-formatted floppy disk to the TA RMX partition of drive C.

## *Listing TA File Attributes*

<b>Command</b>	TSATTRIB
<b>NT Equivalent</b>	ATTRIB
<b>Function</b>	Obtains or changes the archived status of files on the TA RMX partition.
<b>Usage</b>	TSATTRIB [/A] [/A-] [/P] [/Q] [[d:][path][filename]]
	/A Set files as unarchived
	/A- Set files as archived
	/P Pause after each page
	/Q Query user for confirmation

## *Pausing Batch Files*

<b>Command</b>	TSSLEEP
<b>NT Equivalent</b>	None
<b>Function</b>	Pauses the execution of a batch file for a designated number of minutes or seconds. It returns ERRORLEVEL = 1, if Ctrl-C is pressed during the execution of TSSLEEP.
<b>Usage</b>	TSSLEEP [/S] [sleep_time]
	/S Sleep time in seconds rather than minutes

Default is 5 minutes sleep time.

**Example** Example use of TSSLEEP can be found in the “Networking” section on page 41.

## *Redirecting the Input and Output of Commands*

As with NT commands, you can use input/output redirection and piping characters with TSDIR, TSDEL, TSGET, and TSPUT.

**NOTE:**

|| Do not use redirection with the commands in the query (/Q) mode.

### Redirection Characters

The redirection characters (<, >) direct the input or output of an operation to a specific device. For example, to obtain a hard copy of a directory listing, enter:

TSDIR > PRN:

The phrase "> PRN:" tells the computer to redirect the output of the TSDIR command to the printer (instead of the screen). Thus, the > character is called the output redirection character. The input redirection character is <.

## Piping Character

The piping character (`|`) enables you to send the output of a TS File Utilities utility to another Windows NT utility. For example, to obtain a directory listing of all files on the default drive and place them in alphabetical order with the NT SORT command, enter:

```
TSDIR | SORT
```

The phrase “`| SORT`” tells the computer to “pipe” the output of the TSDIR utility (a directory listing) to the NT SORT utility so that it can be placed in alphabetical order.

## Chapter 5: Applications for Advanced Users

---

### *One Step Copy and Convert TA RMX Data*

With a simple NT batch file you can copy TA data from the TA RMX diskette to the NT partition and convert the binary data into an ASCII format. Use any ASCII text editor and write the following commands, saving them as a file named TACNC.CMD:

```
TSGET A:*. * C:\TA\BINARY\  
IF ERRORLEVEL = 1 GOTO END  
TSB2A C:\TA\BINARY\*. * D:\TA\DATA\  
IF ERRORLEVEL = 1 GOTO END  
:END
```

**NOTE:**

|| You must first create the TA/BINARY and TA/  
|| DATA subdirectories.

This batch file will get TA files from the RMX diskette and put them in the TA/BINARY subdirectory in the NT partition of drive C. The files in the BINARY subdirectory will be converted to ASCII format and saved in the DATA subdirectory. The IF ERRORLEVEL statement allows the program to exit if Ctrl-C or Ctrl-Break is pressed during the file transfer or conversion process.

## Removing Erroneous Points from Data Files

This procedure is used to remove erroneous data points from the TA data files.

1. Using the data analysis program, rescale your data and record the exact time that the erroneous data occurred.

**NOTE:**

You may want to select the points as the line type in the Data Analysis program so that you can observe individual data points. For large data files, you may have to use time or temperature limits to eliminate data compaction and to observe each individual point.

2. If your data is stored on an RMX disk (instead of NT), use TSGET to move your data from the RMX disk to the NT partition.
3. Use TSB2A to convert your binary data into ASCII data.

**NOTE:**

Do not use the /S switch for spreadsheets because it removes the header information, which is needed to convert the data back into binary.

4. Import the ASCII data into your spread sheet software (e.g., Excel for Windows, Version 4.0, works well.), but do not parse the data. Parsing the data puts commas, etc. into the file that causes errors when converted to binary data.

**NOTE:**

A simple text editor will also work to edit out the erroneous data points, but may not work with large data files.

5. Scroll down to the erroneous points and delete them.
6. Save the resulting file as an ASCII file.
7. Use TSA2B to convert your ASCII data back into binary data.
8. If you need to analyze the data in RMX, use TAPUT to place the corrected binary data back onto the RMX disk.
9. Analyze this corrected file as you normally would.

## *Monitoring Error Conditions in Batch Files*

The File Utilities software contains error-checking routines that generate an appropriate message to notify you if an error occurs. Each of these error messages also has a unique code that can be read by the NT IF ERRORLEVEL command. Thus, if you incorporate File Utilities commands in your batch files, you can include error-checking routines that specify actions for specific error conditions. For example, the line:

```
IF ERRORLEVEL = 1 ECHO MY PROGRAM  
FAILED
```

means “If error condition #1 is encountered, print the message ‘MY PROGRAM FAILED’ on the screen.”

## Networking with RMX Data

TA File Link is an optional product that allows a second computer (the TA server) access to the files on the hard drive of the TA RMX controller. File Utilities are used from the server to transfer data from the RMX controller to the server. This data can be made available to all other network computers through a network card and network software on the server. You must supply the network card and software to assure maximum network compatibility.

The following batch file can be placed on the second computer (server) and when executed will continually update the server with the latest TA RMX data. This file is called TA\_XFER.CMD

```
:START
TSGET D:*. * C:\DATA\ /M /O
IF ERRORLEVEL = 1 GOTO END
TSSLEEP %1
IF ERRORLEVEL = 1 GOTO END
GOTO START
:END
```

The batch file is executed by typing

```
TA_XFER 10
```

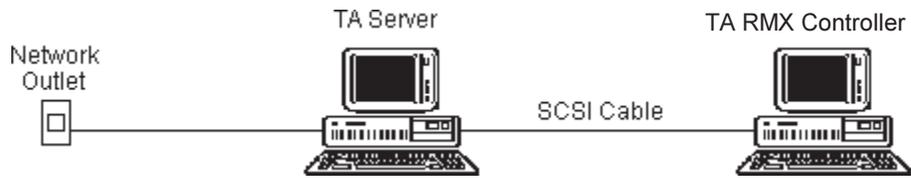
where 10 is the delay time, in minutes, between data transfers.

◆ **CAUTION:**

Do not use TSPUT or TSCOPY to move files from the server to the TA Thermal Analyst when it is running the TA Operating System in RMX. Reboot the Thermal Analyst into NT or DOS before using TSPUT or TSCOPY.

◆ **CAUTION:**

Do not write files to a currently active operating system on the TA controller.



## Chapter 6: Error Messages

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Listed below are the error messages you may encounter when using File Utilities. A brief explanation of how to correct each error is provided.

Can't copy a file to itself

**Problem:** The input and output filenames are the same.

**Solution:** Use a different output filename or path.

Can't create destination <filename>

**Problem:** An I/O error occurred when opening an output file.

**Solution:** Check the drive and try again. The disk may be corrupted and unusable.

Can't create destination file for <source\_file>

**Problem:** A legal input filename is not a valid output filename. The DOS and RMX filename conventions are similar, but not exactly the same. When transferring between one file system and the other, a new filename must be used when the output filename would be invalid.

For example:

- (1) The DOS filenames are valid, but the RMX filenames are invalid:
  - Filenames may contain the characters / or ^.
- (2) The RMX filenames are valid, but the DOS filenames are invalid:
  - Filenames may be greater than eight characters in length.
  - Filename extensions may be greater than three characters.
  - More than one “.” was used in a filename.
  - Filenames containing printing, non-alphanumeric characters other than ! # \$ % & ( ) - @ \_ ‘ { } and ~.

Solution: Use a different output filename.

Destination cannot be an RMX drive

Problem: An attempt has been made to copy to an RMX formatted disk in drive A or B. The disk should be a DOS-formatted disk.

Solution: Check that the correct type of disk was used.

Destination cannot contain wildcard characters.

**Problem:** The destination filename cannot contain the ? or \* characters.

**Solution:** Use a different output filename.

Destination must be a directory.

**Problem:** An attempt has been made to copy multiple files into a single file.

**Solution:** Use a different output file path.

Directory name must be DATA or REPORT.

**Problem:** An attempt has been made to access a file in a directory other than DATA or REPORT.

**Solution:** Use a DATA or REPORT directory for this function.

Disk corrupted

**Problem:** The information about files on an RMX disk is inconsistent.

**Solution:** Check the drive and try again. The disk may be unusable.

Disk error n

**Problem:** A general disk error has occurred.

**Solution:** Check the drive and try your operation again. The disk may be corrupted and unusable.

Disk full

**Problem:** The output disk is full.

**Solution:** Delete some files from the disk or use another disk and perform your operation again.

Disk is write-protected

**Problem:** The output disk is write-protected.

**Solution:** Unprotect the disk and try again.

File is already binary data

**Problem:** You tried to convert a data file to binary, but it is already binary.

**Solution:** Convert another file that is not binary already.

File is already text data

**Problem:** You tried to convert a data file to text, but it is already text.

**Solution:** Convert another file that is not text already.

File is not a directory

**Problem:** You have attempted to copy multiple files from a single file.

**Solution:** Use a different input file path.

File is not found  
File not found: <path>

**Problem:** The input file does not exist.

**Solution:** Check that the correct filename was used.

Internal error 30 — File block number out of range  
Internal error 31 — Fnode number out of range  
Internal error 32 — Free fnodes exhausted  
Internal error 33 — Free file blocks exhausted  
Internal error 34 — Incorrect file type  
Internal error 35 — Bit map full  
Internal error 36 — Drive not opened  
Internal error 37 — Bad parameter  
Internal error 38 — Directory too large  
Internal error 39 — File too fragmented to extend  
Internal error 40 — Total blocks in fnode block pointers less than total blocks in file

**Problem:** An unexpected error occurred. Disk directory information is probably corrupted.

**Solution:** Try again. If error persists, call TA Instruments Service.

Invalid data file <filename>

**Problem:** A floating-point exceptions has occurred.

**Solutions:** None. The file cannot be transferred.

Invalid drive

**Problem:** The drive does not exist in the system, or a letter was not used.

**Solution:** Check that the correct drive letter was used.

Invalid option '/y'

**Problem:** The indicated option switch '/y', is not defined for this program.

**Solution:** Use a valid option switch. Use the /? switch to list valid options.

Invalid sleep time, must be number > 0.

**Problem:** The sleep time value entered was less than or equal to 0, or a numerical value was not entered.

**Solution:** Use a sleep time greater than 0.

No disk in drive

**Problem:** There is not disk in drive A or B.

**Solution:** Check the drive and try again. The disk drive may be unusable.

No files specified

**Problem:** No files were specified to delete.

**Solution:** Check that the program arguments were entered correctly. Use the /? switch to display the program arguments expected.

No source path specified

**Problem:** No files were specified when the program was started.

**Solution:** Check that the program arguments were entered correctly. Use the /? switch to display the program arguments expected.

Not an RMX disk

**Problem:** An attempt has been made to access a disk in drive A or B that is not an RMX formatted disk.

**Solution:** Check that the correct disk was used.

Out of memory

**Problem:** There is insufficient free memory for the program to run.

**Solution:** Check that there is not other program that is using memory.

RMX disk or partition already in use

**Problem:** Another NT session is actively using the disk. An RMX disk can be accessed by only one program at a time.

**Solution:** Wait for the other NT session to be completed and try again.

RMX partition not found

**Problem:** A portion of the hard disk has not been reserved and formatted for RMX files.

**Solution:** Check that the correct drive letter was used.

Source cannot be a directory

**Problem:** A directory was accessed where a file was expected.

**Solution:** Check that the correct filename was used. If all files in a directory are to be accessed, specify them with “<dir>\\*” instead of “<dir>”.

Source cannot be an RMX drive

**Problem:** An attempt has been made to copy from an RMX-formatted disk in drive A or B. The disk should be a DOS-formatted disk.

**Solution:** Check that the correct type of disk was used.

Wrong media type

**Problem:** Output device is not a disk drive.

**Solution:** Select another device.

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