



Description of Functions  
Version 0.03

[system-99 user-group](#)

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# MFM2 – Magic File Manipulator 2

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Last Manual Edit: 2017-10-17  
Translation by Bob Carmany  
Actual versions at [system-99 user-group](#)

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# MFM2 – Magic File Manipulator 2

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## MFM2 – Magic File Manipulator 2

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### Forward

The Magic File Manipulator 2 was developed from a program by Ben Hatheway that was a hybrid of Extended Basic and machine language.

The program idea pleased me very well but only the performance of the Extended-Basic program was for me a bit pedantic and difficult to handle.

I decided after much analysis to re-code the program as a machine language program which loaded much faster and offered more complete control of the memory areas.

The actual version offered to date is in the beta stage and it is not known to be free of errors.

Also the different program sections are rudimentary, that is, not completely finished.

In general, the program sections described in these instructions should at least function even if the status messages do not appear.

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## Program Window

When MFM2 starts, the program waits for a response from the remote terminal. If the remote terminal has already started, you will see the following screen on the TI:

```
M F M 2 - v0.03 - 30.10.2007 hg
-----

Magic File Manipulator 2 v0.03
nach einer Idee von Ben Hatheway
(from an idea from Ben Hatheway)

(V) ... Verzeichnis erstellen (Create SubDir)
(K) ... Diskettenkatalog (Disk catalog)
(L) ... Datei loeschen (Delete File)
(R) ... Datei umbenennen (Rename File)
(P) ... Dateischutz modifizieren (Modify File Protection)
(Z) ... Datei anzeigen (Display File)
(X) ... Dateitransfer via XMODEM File Transfer via XMODEM)
(Q) ... Programm beenden (End Program)

Bitte auswaehlen:
(Please choose)

-----

Build: 00000000 xx.xx.xxxx xx:xx
```

The upper area displays the version number and version date, the lower line (status line) displays the build number which is a sequential count of the assembler runs, and the appropriate creation date. These are approximate and should not be used for the exact identification and have no further use for the user.

The area between the two lines is the terminal area where the actual actions are displayed.

## Settings

The receiving terminal can be any terminal program with the parameters of 19200 8N1, thus:

- 19200 BPS (Bits per second)
- 8 Data bits
- No parity
- 1 Stop bit

In Windows these can be adjusted fully with Hyperterminal.

On the TI side, these parameters are set in the program and also RS232/1 is installed.

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### Program Operation

The operation of this program is through the use of the following command keys which can be done on the TI side or the other terminal. The resulting text is the same on both sides.

In a program section if further information is needed, a question is displayed and the designated input is awaited.

After the respective individual action, a message is displayed informing you whether or not it is successful.

Subsequently, further help in the form of the input possibilities is displayed.

Current text output can be stopped on both sides with CTRL-S and started again with ENTER.

CTRL-C breaks the running output.

Also FCTN-4 can abort the entire program phase.

## The Individual Program Sections

### **Q – Program End**

With this function one can end the running program on the TI side after a security question is asked. The control of the remote terminal is only possible by ending the program.

```
Bitte auswaehlen: q (Please choose)
Wirklich beenden? J (Really end?)
```

```
Programm wurde am HOST (TI99) beendet (Program ended by HOST (TI99))
```

### **V – Listing**

Here you can create a new sub listing with a mass storage device, for example, with an ASCSI Card with SCSI disk drive.

```
Bitte auswaehlen: v (Please choose)
Bitte kompletten Pfadnamen eingeben: z.B. SCS6.TEST.NEUES (Please input complete
pathname)
--> Verzeichnis NEUES wird in SCS6.TEST angelegt. (The NEW listing will be)
SCS6.ABCD
Aktion erfolgreich ! (Action completed)
```

### **K – Display Disk Catalog**

The contents of the disk drive or other mass storage device can be displayed with this function. After the input of "K" the input of the device name is requested. Here you can input, for example, DSK1 as well as SCS6.ABCD.

```
Bitte auswaehlen: K (Please choose)
Bitte das Diskettenlaufwerk angeben (DSKn) (Please input disk drive)
```

```
DSK1
```

Filename	Size	Type	Prot
-----			
AEMSSIZE	2	Program	
MM	33	Program	
.			
.			
XB275	34	Int/Fix	P
XB276	34	Int/Fix	P

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### ***L – Delete File***

The file on the TI will be deleted and can be done as follows:

```
Bitte auswaehlen: l (Please choose)
Bitte kompletten Dateinamen eingeben (Please input the complete filename)

DSK9.MFM
Datei wirklich loeschen? J (Really delete file? Yes)

Aktion erfolgreich ! (Action completed!)
```

### ***R – Rename File***

A file can also be renamed on the TI:

```
Bitte auswaehlen: r (Please choose)
Bitte kompletten Dateinamen eingeben (Please input the complete filename)

DSK9.MFM2
Bitte den neuen Dateinamen eingeben (Please enter the new filename)

MFM2_NEU
Aktion erfolgreich! (Action completed)
```

Please observe that the new filename must be input **WITHOUT** the device name

### ***P – Modify File Protection***

If the target file on the TI side is write protected, it can not be overwritten. In this case, the write protection can be switched on or off.

```
Bitte auswaehlen: p (Please choose)
Bitte kompletten Dateinamen eingeben (Please input the complete filename)

DSK9.MFM2
(P)rotect or (U)nprotect? P
Aktion erfolgreich! (Action completed!)
```



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### **Z – Display Text File**

This function will display a text file on the receiving terminal.

```
Bitte auswaehlen: z (Please choose)
```

```
Bitte kompletten Dateinamen eingeben (Please input the complete filename)
```

```
DSK9.HDXREADR
```

The complete filename must be input. If the filename is incomplete or is not in a DIS/VAR 80 format an error message will be displayed.

```
nicht unterstuetztes Format oder Datei nicht gefunden (Supported format or file not found)
```

If the existing file is in the correct format, the text output is immediately begun.

```

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod
tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero
eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea
takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet,
consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et
dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo
dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem
ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed
diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed
diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita
kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.
```

The output of the text can be stopped with CTRL-S and re-started with ENTER.

CTRL-C breaks off the transmission.

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## MFM2 – Magic File Manipulator 2

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### ***X – File Transfer via XMODEM***

With this function it is possible to easily transfer a file from the remote terminal to the TI or transfer the file in the other direction.

The XMODEM protocol as well as the CRC format and the CRC checksum is supported.

This function is started through the input of the command "X".

You will be asked for the complete filename on the TI side, for example, DSK1 DATEINAME.

With the question

```
(U)pload (TI sendet) oder (D)ownload (TI empfaengt)? ((U)pload (TI send) or  
(d)ownload (TI receive?))
```

decides whether a file is sent from the TI to the remote terminal (upload) or whether a file is received from the remote terminal to the TI (download). The input "U" or "D" starts the action.

Depending on the direction, the action must be started on Hyperterminal in Windows from where the file will be sent or received.

The program waits for the remote terminal for a certain length of time (about 150 seconds) during which control characters appear on the screen that are of not meaningful to the user. If the transfer is not started in the specified time, the action is broken off.

```
Fehler aufgetreten (Error arose)
```

The automatic handling of this phase can be stopped with FCTN-4.

Following the transmission of the parameters, the transfer is begun.

After the transfer will

```
Aktion erfolgreich! (Action completed!)
```

Be displayed.