**Caution:** When LED 1 – Busy – lights up, do not under any circumstances remove the USB Stick or deploy the selection button, or else you might incur data losses. The virtual floppy images must be in correct sequence in order to be selected with the selection button.

4.2 One pen drive replaces one floppy

You must format the pen drive first before you can use it as a data carrier for the USB Floppy Emulator.

Caution: This process deletes all data on the pen drive.

1. Start Floppy Manager Tool „USB_Floppy_ManagerII_V1.31T.exe"

2. Insert pen drive into your computer

3. Select „Format"

4. Choose the USB pen drive

5. Select floppy size „Select floppy format"

6. You can make images bootable with "DOS bootable disk". (The Floppy Emulator starts with image "00" when you switch it on.)

7. Choose number of Images on your pen drive „The number of floppy disk"

8. Choose start button „Begin to format"
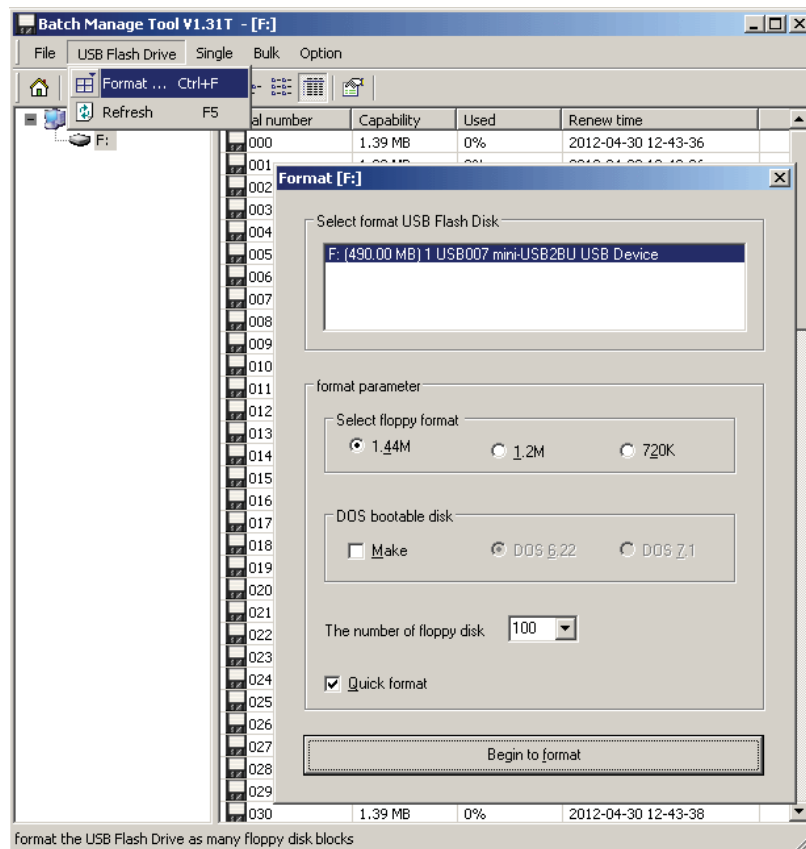
Please note:
One image uses approx. 7 MB on your pen drive. For 100 images, your pen drive should hold 1 GB (only USB Floppy Emulator V2). For the SlimLine version, it is sufficient to format only one image per USB pen drive.

4.3 Access to a pen drive without additional software

No additional software is required for the **first** Image.

The first floppy image (00) is automatically recognized by your PC and is mounted under the next vacant drive letter. (e.g.: F:\)
The Slimline Floppy Emulator has no display. You can only use the first image.
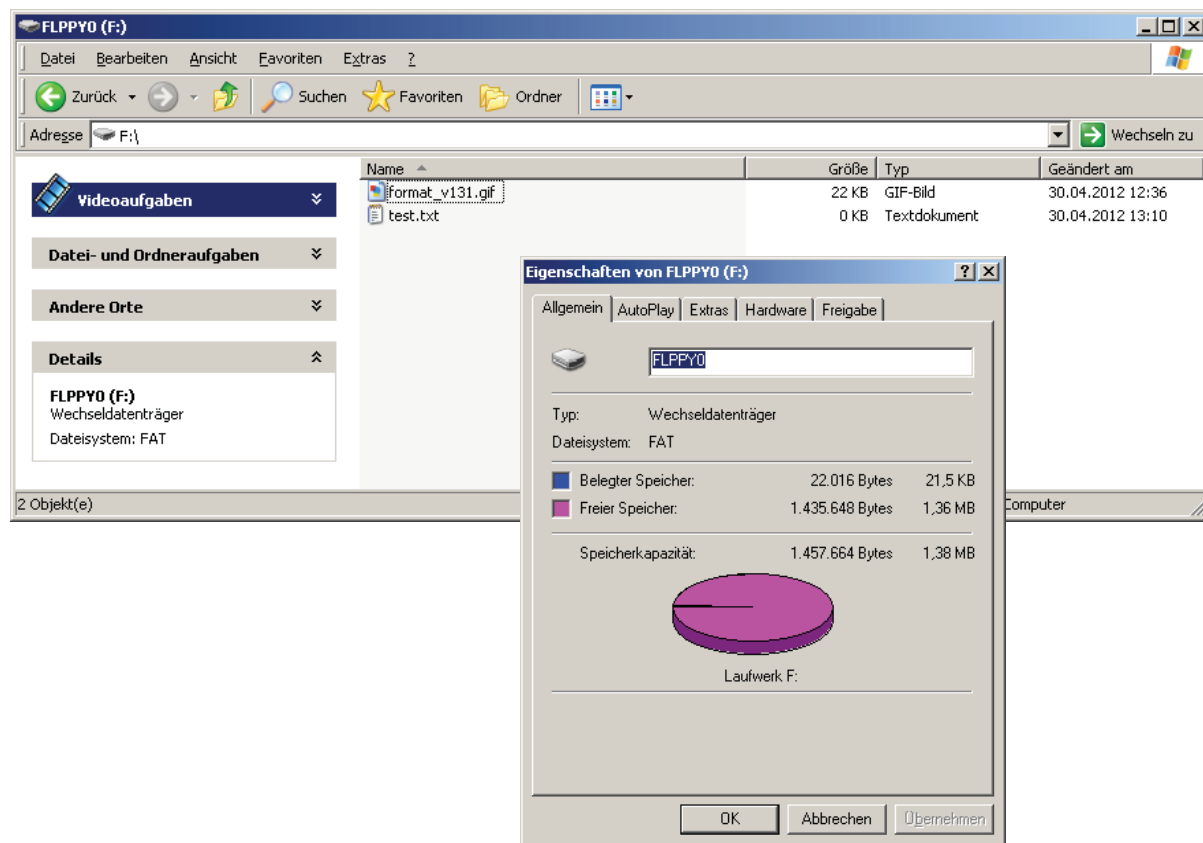
Please note:
Only the first image will be directly mounted.

Caution:
Access to a PC is only enabled if you use non-proprietary file systems.

4.4 Access to pen drive with up to 100 floppy images

Floppy Manager Tool
„USB_Floppy_ManagerII_V1.31T.exe" required.

1. Start Floppy Manager Tool „USB_Floppy_ManagerII_V1.31T.exe"

2. Insert pen drive into your computer

3. Choose the Images

4. Choose „Open"

5. The files of the selected image are copied to a **temporary** directory for processing and automatically opened in the Explorer.

6. Files were deleted, added or modified should be stored from the temporary image on the USB stick with using the option "Save".
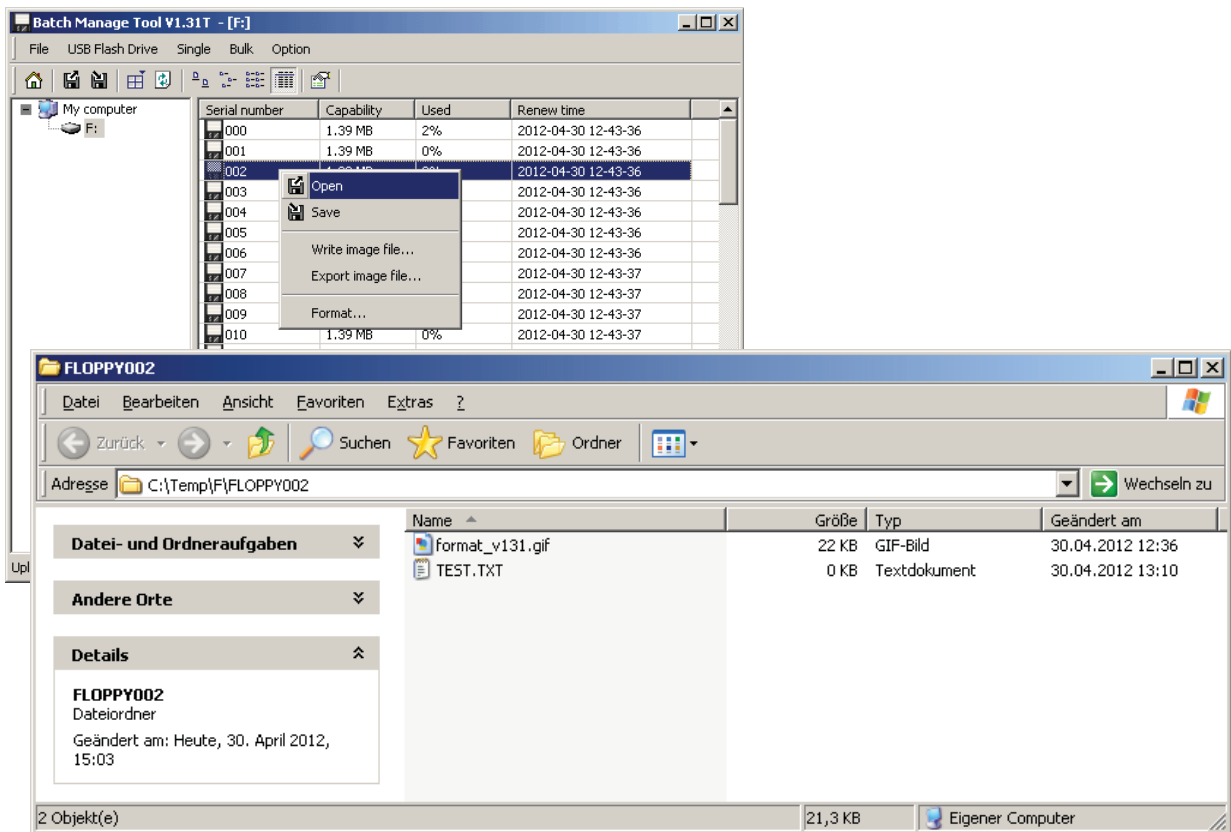
Please note:
The temporary directory is not suitable as a backup directory. If you work with multiple USB flash drives you have no distinction between the USB pen drives.

Caution:
Access to a PC is only enabled if you use non-proprietary file systems.

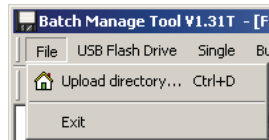# 4.5 Overview about the Floppy Manger Tool

The Menubar:

The Toolbar:

The functions of the icons in the toolbar can be found in the menu bar.

Menu „File":
- Upload Directory   Opens the current temporary directory in Explorer
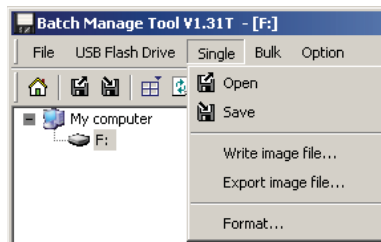- Exit   Programm end

Menu „USB Flash Drive":
- Format   Gets the dialog to format a USB flash drives (see
                            4.2 One pen drive replaces one floppy)
- Refresh   Updates the display of images
                            (on pen drive)

Menu „Single":
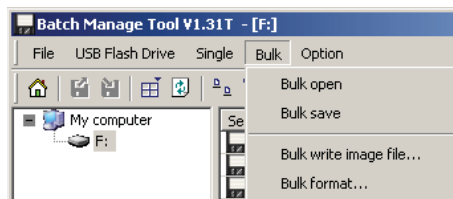- Open   Copies the selected image into the temporary
                              directory and opens it in Explorer.
- Save   Saves the selected image from the temporary
                              directory on your USB pen drive.
- Write image file   Writes an image file (.Img) to the selected image to
                              a USB pen drive.
- Export image file   Create an image (.Img format) from the selected
                              image from your USB flash drive. (Can be used as
                              backup)
- Format   (see 4.2 One pen drive replaces one floppy)

Menu „Bulk":
- Bulk open   Copies the selected images in the temporary
                              directory and opens it in Explorer.
- Bulk save   Saves the selected image from the temporary
                              directory on your USB pen drive.
- Bulk write image file   Writes an image file (. Img) to the selected images
                              to a USB flash drive. (Can be used to reproduce an
                              image (template))
- Bulk format   Formats all selected images.
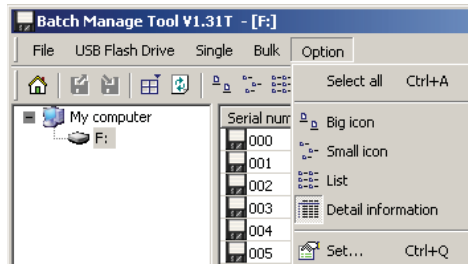
Menu „Option":
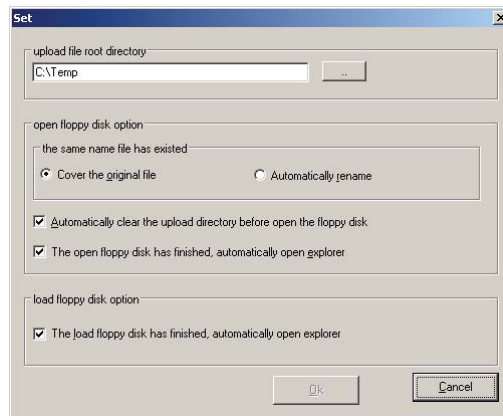- Select all   All Images selected.
- Big icon   Big Icons.
- Small icon   Small Icons.
- Detail information   Detail information.
- Set   Options configure.

Menu „Set"
- Upload file root directory
   Temporary directory set.
- The same name file has existed
   If an image is opened again, they can determine whether duplicate files to be overwritten or renamed. (Depending on the next function)
- Automatically clear the uploaded directory before open the floppy disk
   Automatically delete the temporary image to open before the image is copied to the temporary directory.
- The open floppy disk has finished, automatically open explorer
   After open or copy the image to the temporary directory automatically open the explorer.
- The load floppy disk has finished, automatically open explorer

6. Interface description

6.1 Back-side USB Floppy Emulator V2
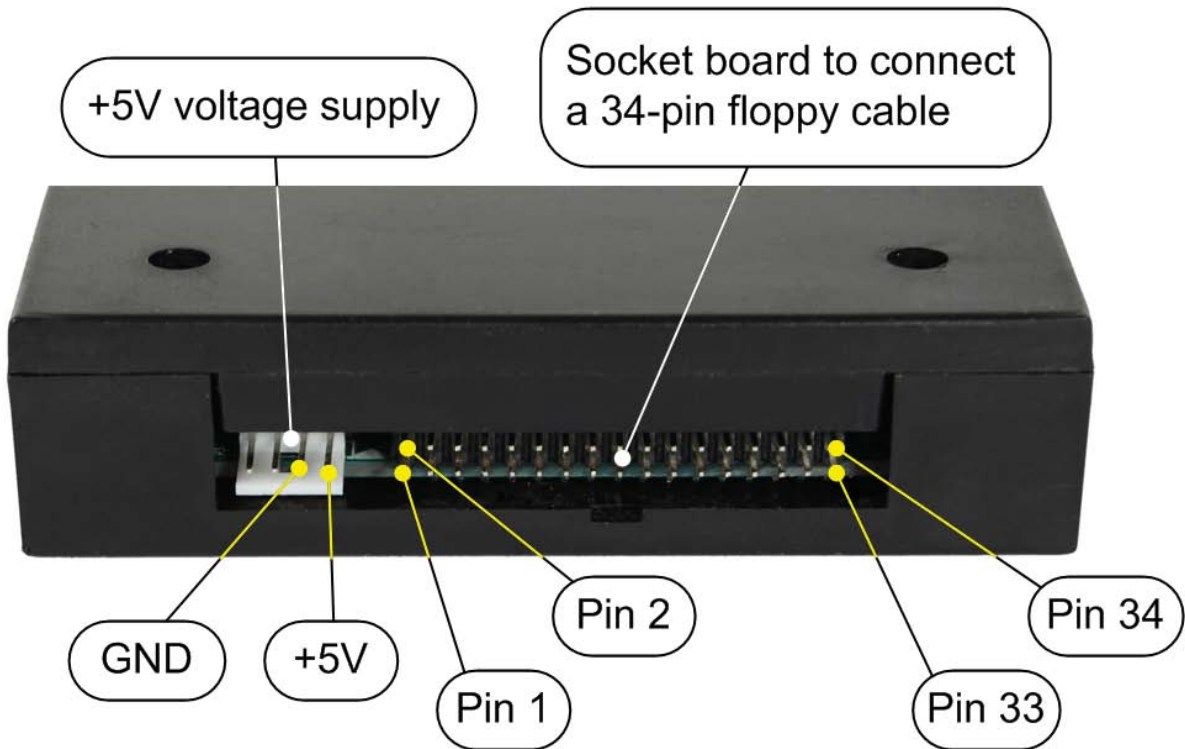
At the back of the disk drive you will find the connection for the voltage supply (+5V DC) and the 34-pin interface to connect the floppy disk drive controller.
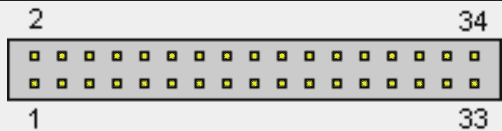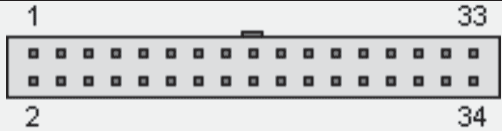
Please check for correct polarity of voltage supply when connecting the floppy disk drive. GND (ground) is usually indicated by a black wire, and +5V by red wire.
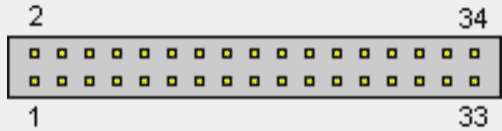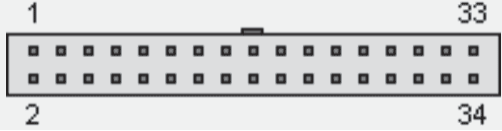Please also correctly attach the 34-pin connection cable.

Also make sure the correct pin sequence is observed (Wire 1 on Pin 1, etc.). Wire 1 is usually indicated by color at the floppy cable (often red or blue).
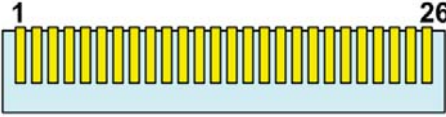

Caution: If the connection cable is attached incorrectly the drive disk will not work (Most of the "Busy" LED lights up permanently in this state).
Maybe it can be damaged.

6.4 Floppy Controller Interface, 34 pin
(USB Floppy Emulator V2)

Standard IBM-AT Interface

34 pin male connector at the motherboard | 34 pin female connector at the cable

Pin	Name	Direction FDC-FDD	Description
2	/REDWC	→	Reduced Write Current (Density Select)
4	-	-	Reserved
6	-	-	Reserved
8	/INDEX	←	Index
10	/MOTEA	→	Motor Enable A
12	/DRVSB	→	Drive Select B
14	/DRVSA	→	Drive Select A
16	/MOTEB	→	Motor Enable B
18	/DIR	→	Direction Select
20	/STEP	→	Step
22	/WDATE	→	Write Data
24	/WGATE	→	Write Gate (Floppy Write Enable)
26	/TRK00	←	Track 0
28	/WPT	←	Write Protect
30	/RDATA	←	Read Data
32	/SIDE1	→	Side Select (Head Select)
34	/DSKCHG	←	Disk Change
	Pin 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33 GND		

Standard Shugart Interface

34 pin male connector at the motherboard | 34 pin female connector at the cable

Pin	Name	Direction FDC-FDD	Description
2	/DSKCHG	→	Disk Change
4	-	-	Reserved
6	-	-	Reserved
8	/INDEX	←	Index
10	/DS0	→	Device Select 0
12	/DS1	→	Device Select 1
14	/DS2	→	Device Select 2
16	/MON	→	Motor On
18	/DIR	→	Direction
20	/STEP	→	Step
22	/WDATE	→	Write Data
24	/WGATE	→	Write Gate (Floppy Write Enable)
26	/TRK00	←	Track 0
28	/WPT	←	Write Protect
30	/RDATA	←	Read Data
32	/SIDE1	→	Side Select (Head Select)
34	/RDY	←	Drive Ready
	Pin 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33 GND		

6.5 Floppy Controller Interface, 26 pin
   (Floppy Emulator SlimLine)

Standard Interface SlimLine			
26 pin connector at the motherboard		26 pin flat ribbon cable connector	
Pin	**Name**	**Direction FDC-FDD**	**Description**
2	/INDEX	←	Index
4	/DRVS	→	Drive Select
6	/DSKCHG	←	Disk Change
7	RES	-	Reserved
8	READY	-	-
9	MEDIA	-	-
10	MOTE	→	Motor Enable
11	/REDWC	→	Density Select
12	/DIR	→	Direction
13	RES	-	Reserved (Inuse)
14	/STEP	→	Step
16	/WDATE	→	Write Data
18	/WGATE	→	Write Gate (Floppy Write Enable)
20	/TRK00	←	Track 0
22	/WPT	←	Write Protect
24	/RDATA	←	Read Data
26	/SIDE1	→	Side Select (Head Select)
Pin 15, 17, 19, 21, 23, 25 = GND			
Pin 1, 3, 5 = +5V DC			