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# FB100 Emulator

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Thank you for installing our Brother FB100 Emulator product.

This HTML Help file provides the documentation for the Brother FB100 Emulator product.

The first part of this document provides information about the functionality of the Brother FB100 Emulator product.

The second part of this document provides information about Dialog Manager, the package used to develop Brother FB100 Emulator.

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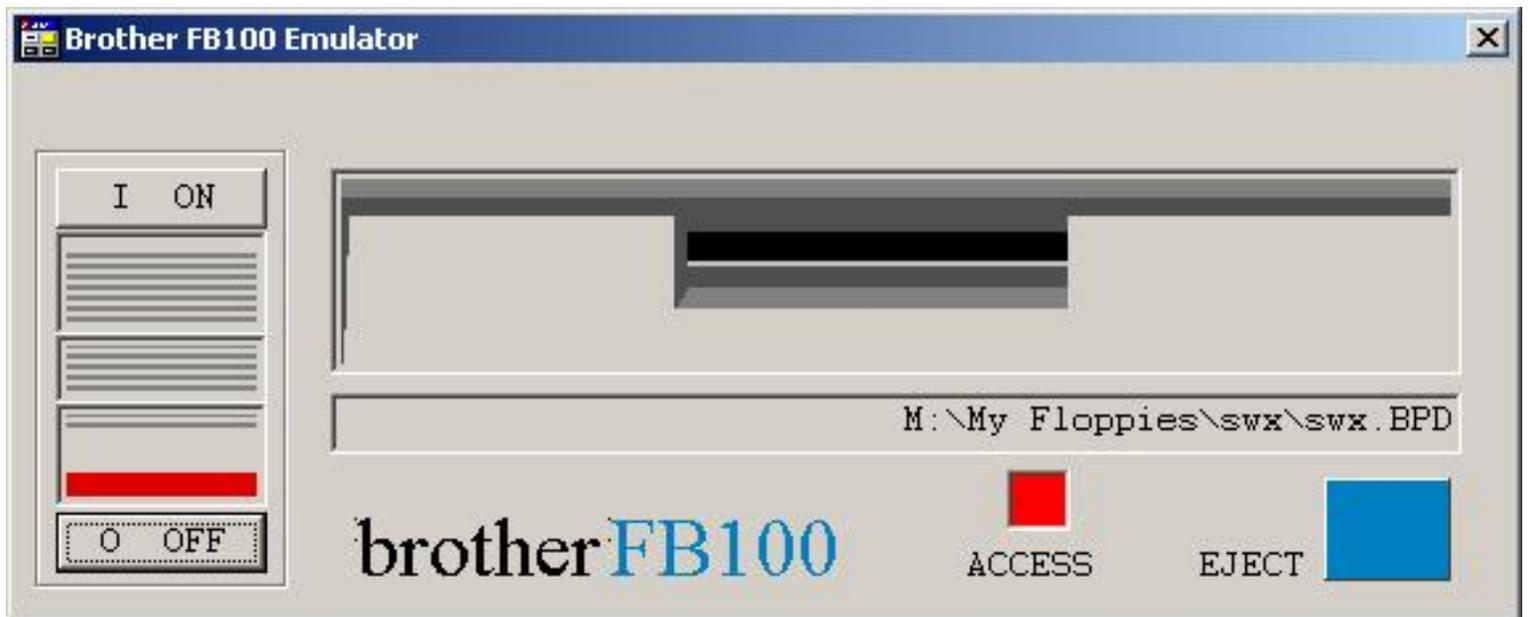
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# FB100 Emulator

## Description

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Brother FB100 Emulator is a program that provides all functions of a Brother [FB100](#) floppy disk drive. Brother FB100 Emulator requires a Brotherlink 1 USB or Brotherlink 5 USB to connect your knitting machine or PPD to your computer.



The theory behind Brother FB100 Emulator is rather simple. A Brother Pattern Disk is a floppy containing 80 Kilobyte data. The knitting machine can read this floppy and most knitting machines can also write the floppy when the Brother FB100 floppy disk drive is hooked up to the knitting machine.

The idea is that, using the Brotherlink 1 USB or a Brotherlink 5 USB and Brother FB100 Emulator, your computer replaces the Brother FB100 floppy disk drive. When you start the emulation, you load a Brother Pattern Disk stored on your computer. When you stop the emulation, you are invited to save the Brother Pattern Disk on your computer in case of changes.

Here we have the first additional application: you will never have the lack of space problem with the Brother FB100 Emulator. You can store as many floppies on your computer as your computer has space for.

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# FB100 Emulator

## Functions

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The Brotherlink 1 USB (BL1USB) or Brotherlink 5 USB (BL5USB) connects a Brother knitting machine or PPD with your computer via a USB port.

The following functions are provided by the Brother FB100 Emulator program:

- 550 : Format Brother Pattern Disk
- 551 : Load Pattern Data
- 552 : Save Pattern Data
- 553 : Delete Pattern Data

A BL1USB or a BL5USB has 2 connectors: an 8 pin connector to connect to the knitting machine or PPD and a USB type A connector to connect to a USB port on your PC.



Two LED indicators are provided to monitor the traffic to and from the knitting machine or PPD:

1. a red LED indicator that registers traffic from the knitting machine or PPD to your computer
2. a green LED indicator that registers traffic from your computer to the knitting machine or PPD

Functions per machine:

Machine	Read	Write	Format	Tracks
KH-940	Yes	Yes	Yes	2 x 32K
KH-950i	Yes	Yes	Yes	2 x 32K
KH-270	Yes	Yes	Yes	2 x 32K
KH-930	Yes	Yes	Yes	40 x 2K
KH-930M	Yes	Yes	Yes	8 x 8K
KH-900	Yes	Yes	Yes	8 x 8K(*)
KH-965i	Yes	Yes	Yes	2 x 32K
KH-970	Yes	Yes	Yes	2 x 32K
CK-35	Yes	Yes	Yes	2 x 32K

(\*) 4K actually used

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# FB100 Emulator

## Starting FB100 Emulator

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Make sure you have a BL1USB or BL5USB connected to your computer.

Follow these steps to start Brother FB100 Emulator:

1. Press **Start**
2. Press **Programs**
3. Press **Cartridge**
4. Press **FB100 Emulator**
5. The configuration dialog of Brother FB100 Emulator will be displayed



**Figure 1**

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# FB100 Emulator

## Configuration

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After starting the Brother FB100 Emulator, you first have to set the com port to which the BL1USB or BL5USB hardware is connected. You do this by clicking one of the com ports from the list and then pressing **OK**. The list of com ports is already reduced to com ports that have a BL1USB or BL5USB connected.



You can show this help file by pressing the **Help** button.

You can start the emulation by pressing the **Emulate** button.

You close the Brother FB100 Emulator application by pressing the **Close** button or the cross in the top right corner of the dialog box.

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# FB100 Emulator

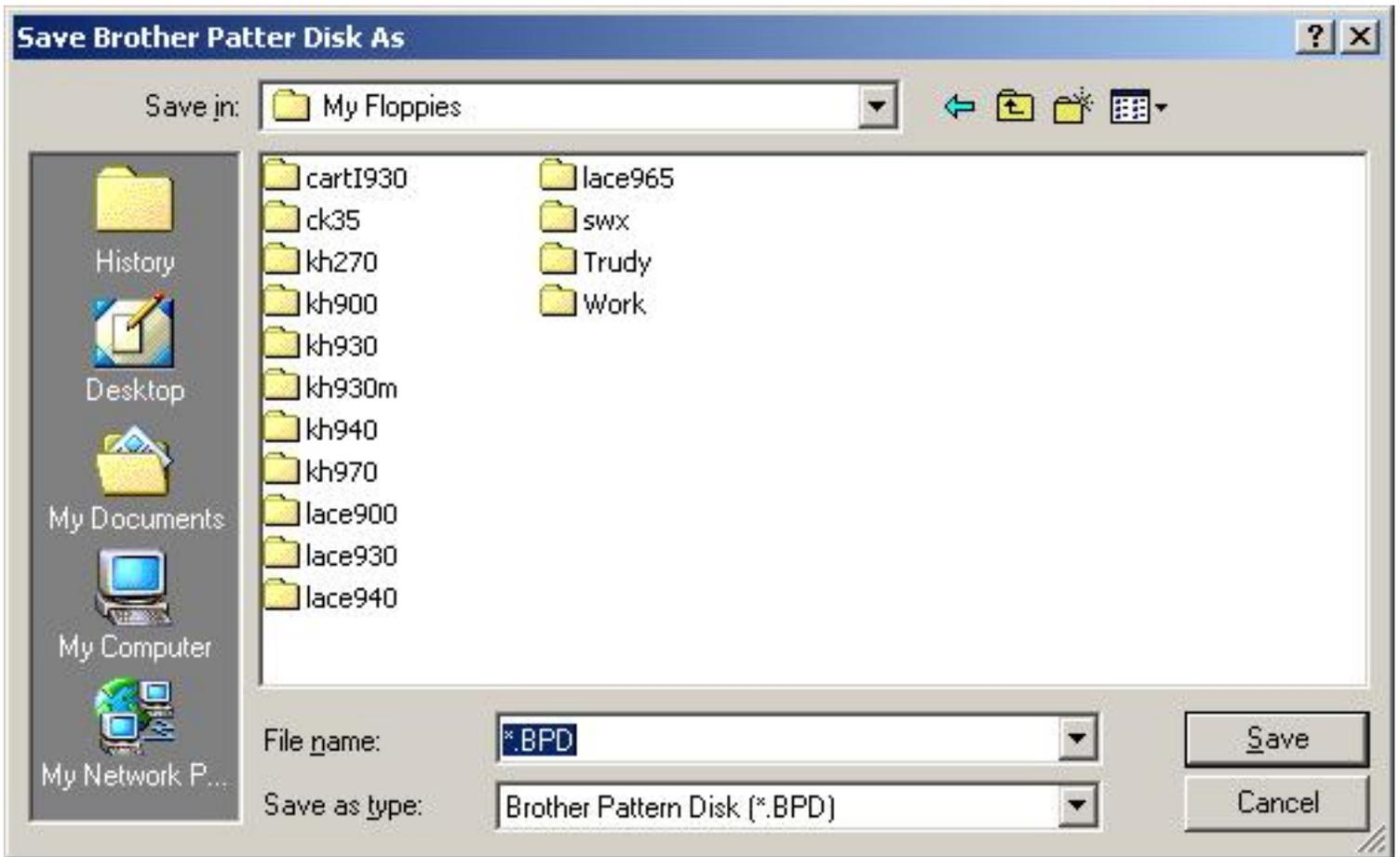
## New Disk

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When you own a Brother FB100 floppy disk drive, you need floppies to store your designs on. In the Brother FB100 Emulator, these floppies are stored as files on your computer with the extension bpd (Brother Pattern Disk). The **New Disk** button creates a new, not formatted disk on your computer.



After pressing the **New Disk** button, you are invited to specify a folder and a filename for the Brother Pattern Disk file.



Press **Cancel** if you didn't want to create a new disk after all.

Select or create a folder (optional) and type a filename (replacing the \*) as you can see below.



Press **Save** to create a new Brother Pattern Disk file.

The newly created file can subsequently be [loaded](#) into the Brother FB100 Emulator. The Knitting machine or PPD will report the just create Brother Pattern Disk as a floppy that isn't formatted (error 5 on KH940 and KH965i). You need to format this Brother Pattern Disk using 550.

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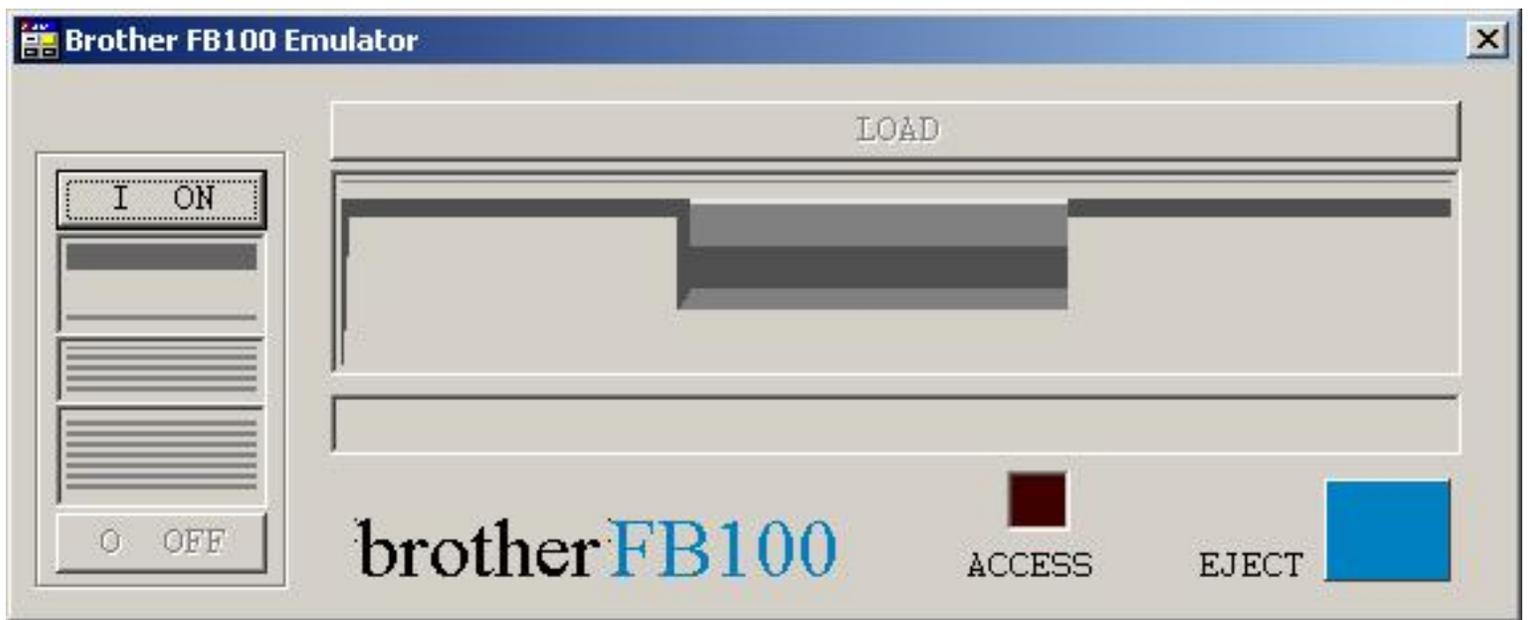
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# FB100 Emulator

## Emulate

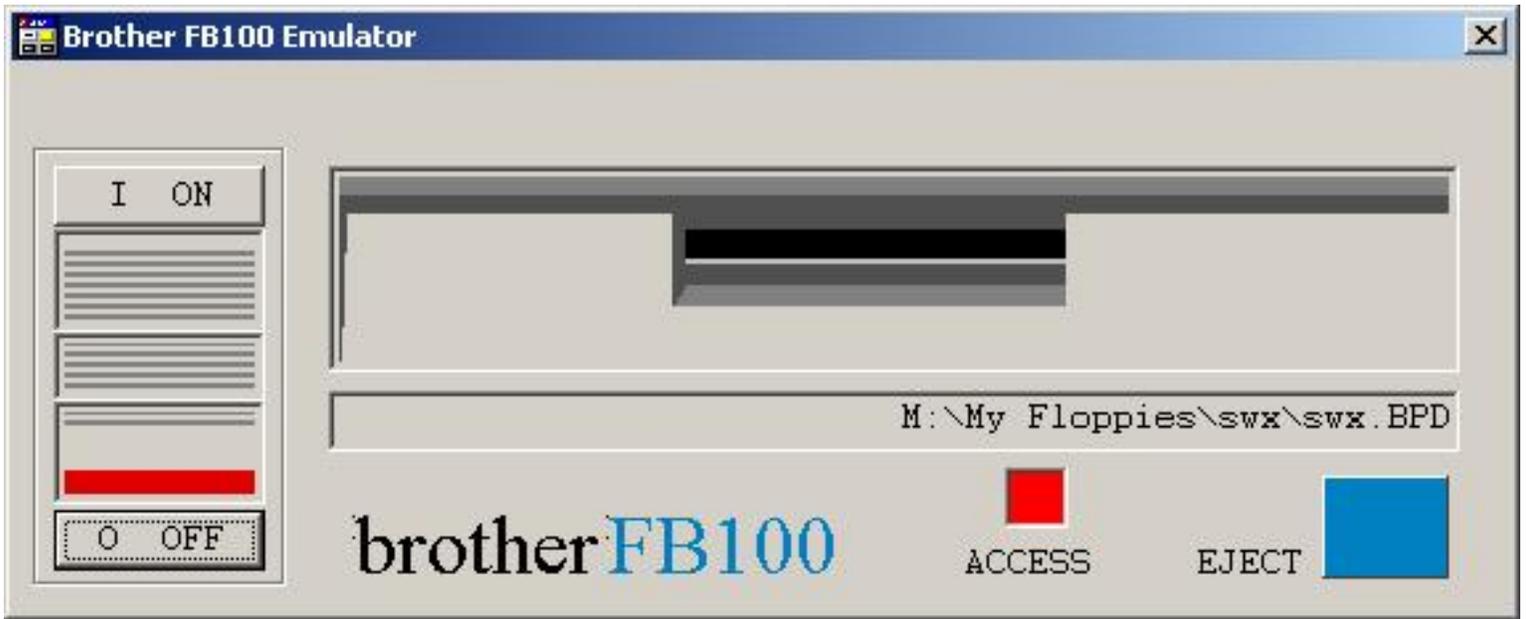
---

When the Brother FB100 Emulator starts, you will see the dialog below.



The dialog looks like a real Brother FB100 floppy disk drive. There is a switch between ON and OFF which is implemented by the **ON** and the **OFF** buttons. The blue **EJECT** button represents the EJECT Button on the Brother FB100 floppy disk drive. The lid of the Brother FB100 floppy disk drive is implemented using the **LOAD** button which disappears when a Brother Pattern Disk file is successfully loaded.

You can close the Brother FB100 Emulator by pressing the cross in the top right corner. In order to do so, there may not be a Brother Pattern Disk loaded and the FB100 must be turned off.



The box above the word ACCESS will turn red when the Brother FB100 Emulator is accessed by a knitting machine or a PPD, just like the ACCESS LED on the Brother FB100 floppy drive.

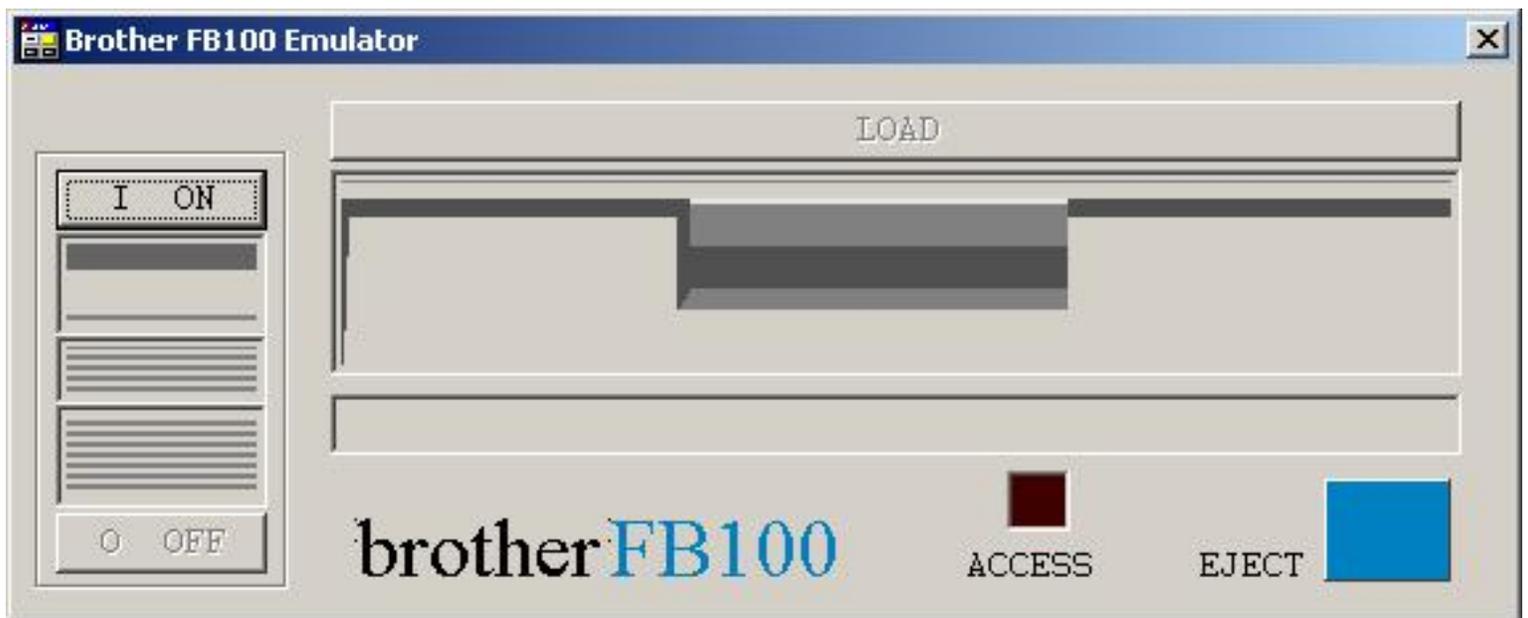
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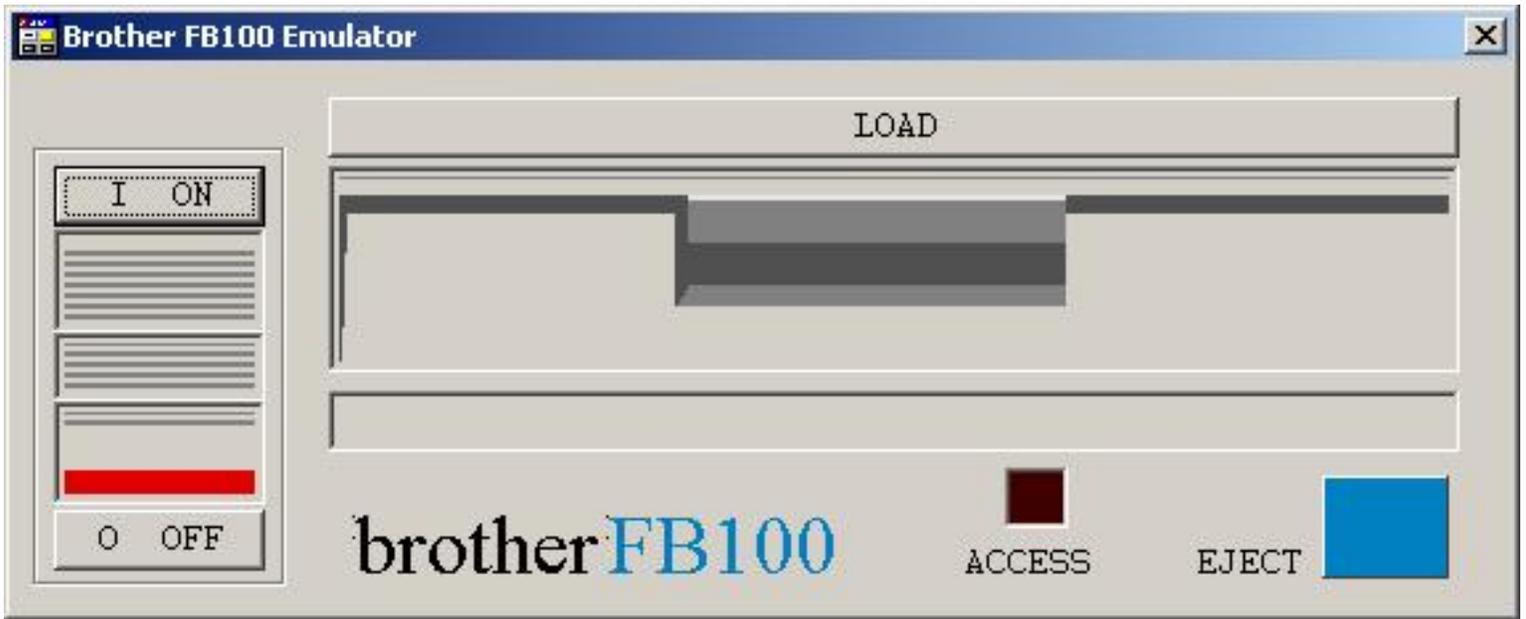
# FB100 Emulator

## Emulator On

You will see the dialog below after pressing the **Emulate** button on the Configuration dialog.



The Brother FB100 Emulator is started in "turned off" state. The first action to take is to turn the Brother FB100 Emulator on, just like you would do with the Brother FB100 floppy disk drive. You turn the Brother FB100 Emulator on by pressing the **I ON** button. This is equivalent to sliding the ON/OFF switch on the Brother FB100 floppy disk drive to the ON position.



The appearance of the Brother FB100 Emulator dialog changes after you pressed the **I ON** button into the picture shown above. Note the read bar above the **O OFF** button, which shows the Brother FB100 Emulator is turned on. Sliding the ON/OFF switch on the Brother FB100 floppy disk drive also unveils a red bar.

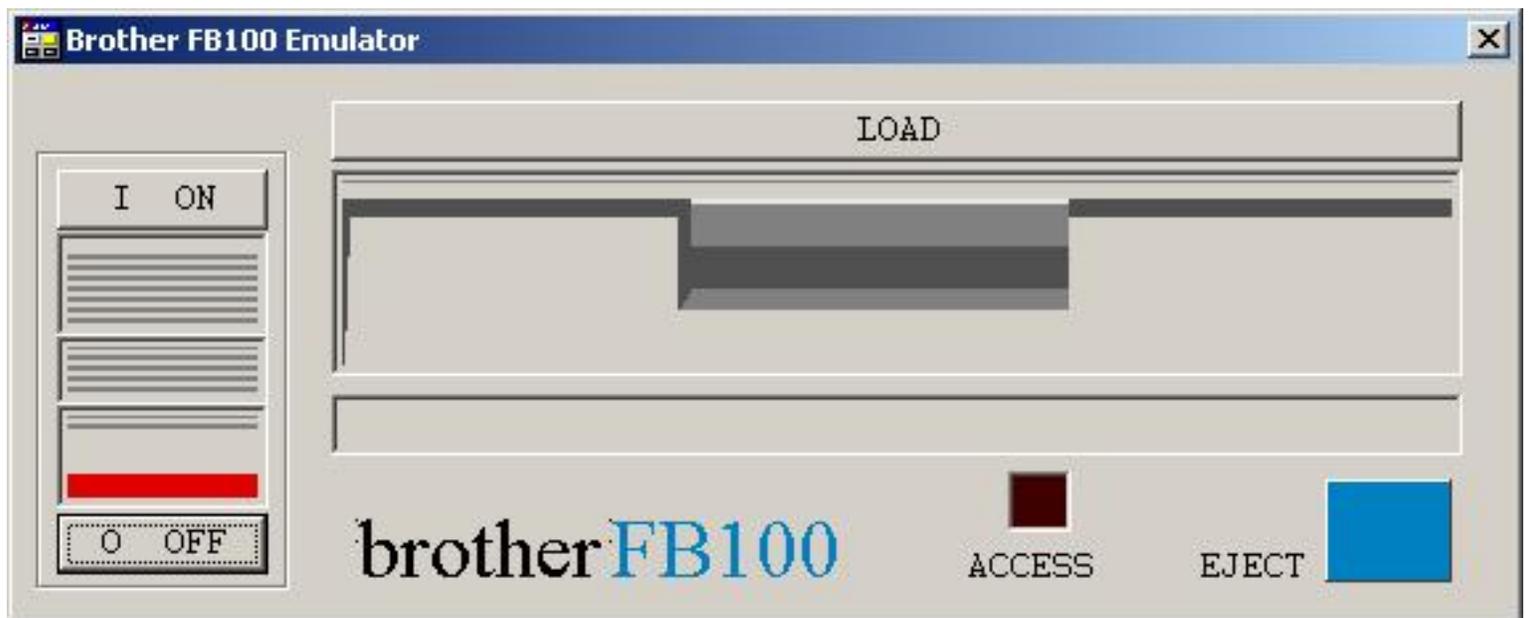
The **O OFF** button has now become available, as has the **LOAD** button. You are now ready to load a Brother Pattern Disk file in the Brother FB100 Emulator just like with a Brother FB100 floppy disk drive, where you insert a physical floppy disk.

Note: the **I ON** button remained available. Pressing the **I ON** button, while the Brother FB100 Emulator is already on, has no effect; it doesn't harm neither.

# FB100 Emulator

## Emulator Off

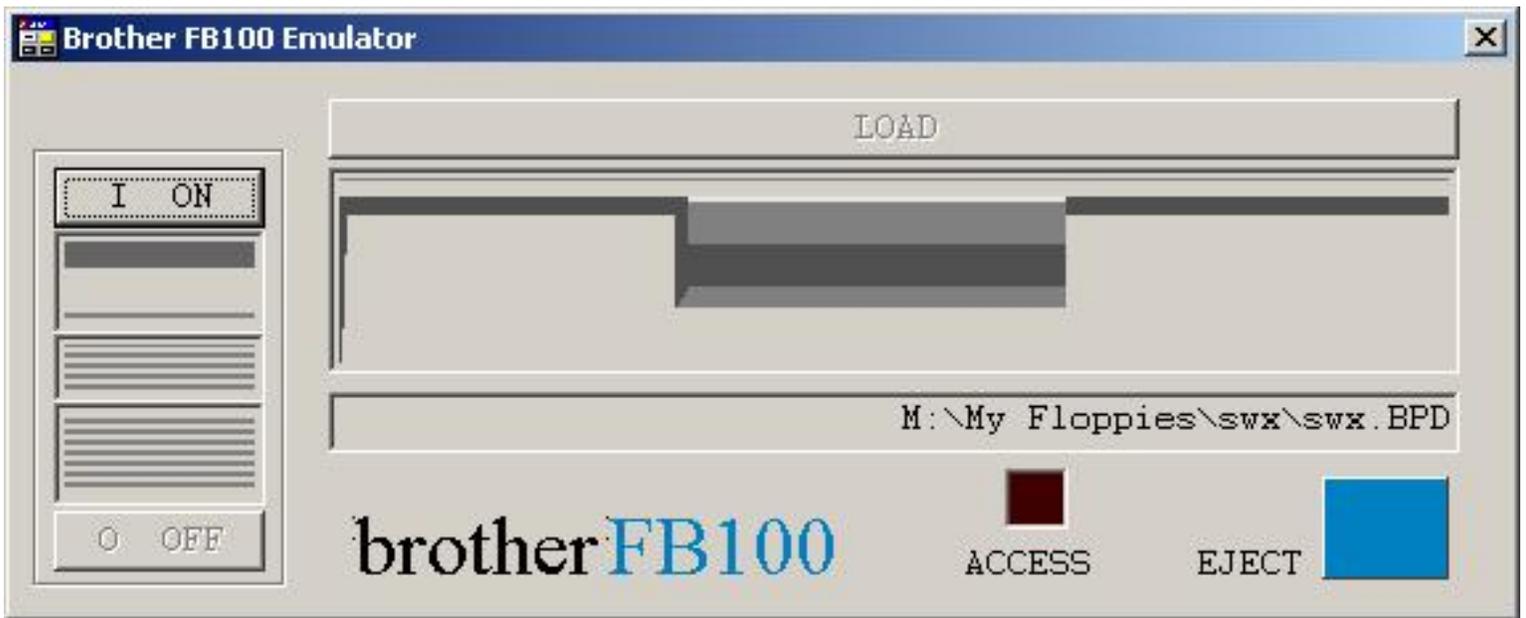
When you want to stop using Brother FB100 Emulator, you need to turn Brother FB100 Emulator off. This is equivalent to turning off the Brother FB100 floppy disk drive.



Press **O OFF** to turn off Brother FB100 Emulator. This is the same as sliding the ON/OFF switch on the Brother FB100 floppy disk drive to the OFF position.



In case a Brother Pattern Disk is loaded, you will get a message to eject the disk.

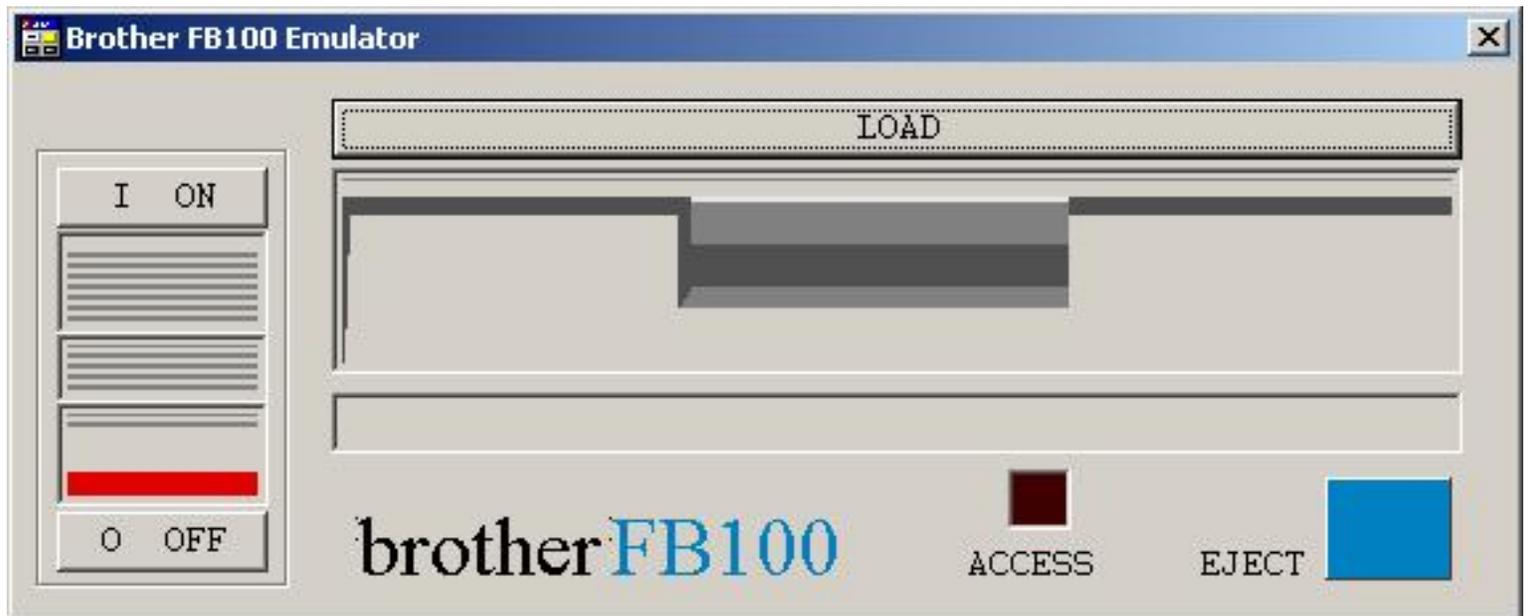


You will see the dialog above when the Brother FB100 Emulator is turned off. You can now close Brother FB100 Emulator by clicking on the cross in the top right corner. The name of the last used Brother Pattern Disk file is preserved and can be used when loading a new Brother Pattern Disk file. Note that the red bar above the O OFF button has gone.

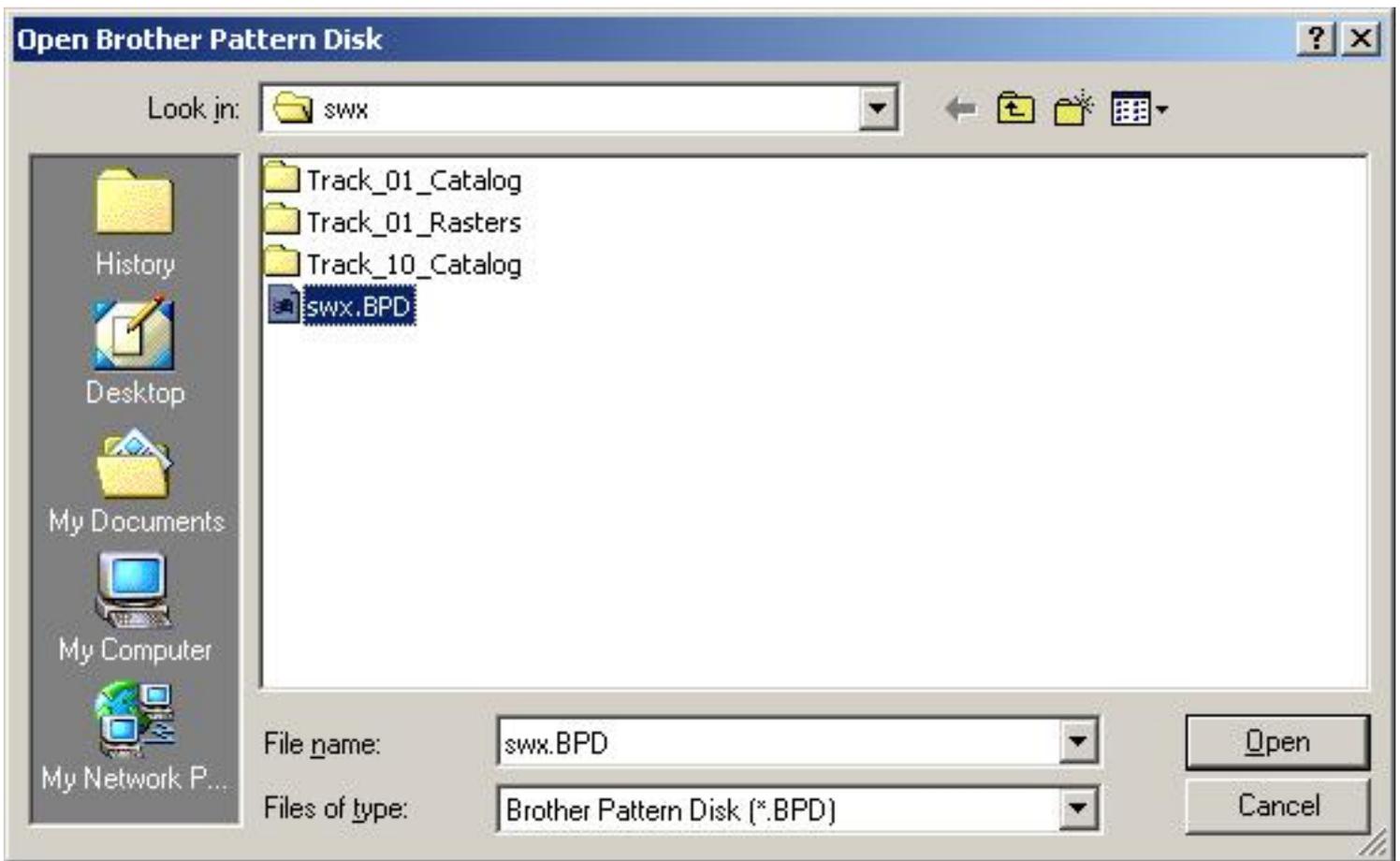
# FB100 Emulator

## Emulator Load

To be able to access patterns, you need to load a Brother Pattern Disk file in the Brother FB100 Emulator. This is equivalent to inserting a floppy in the Brother FB100 floppy disk drive.



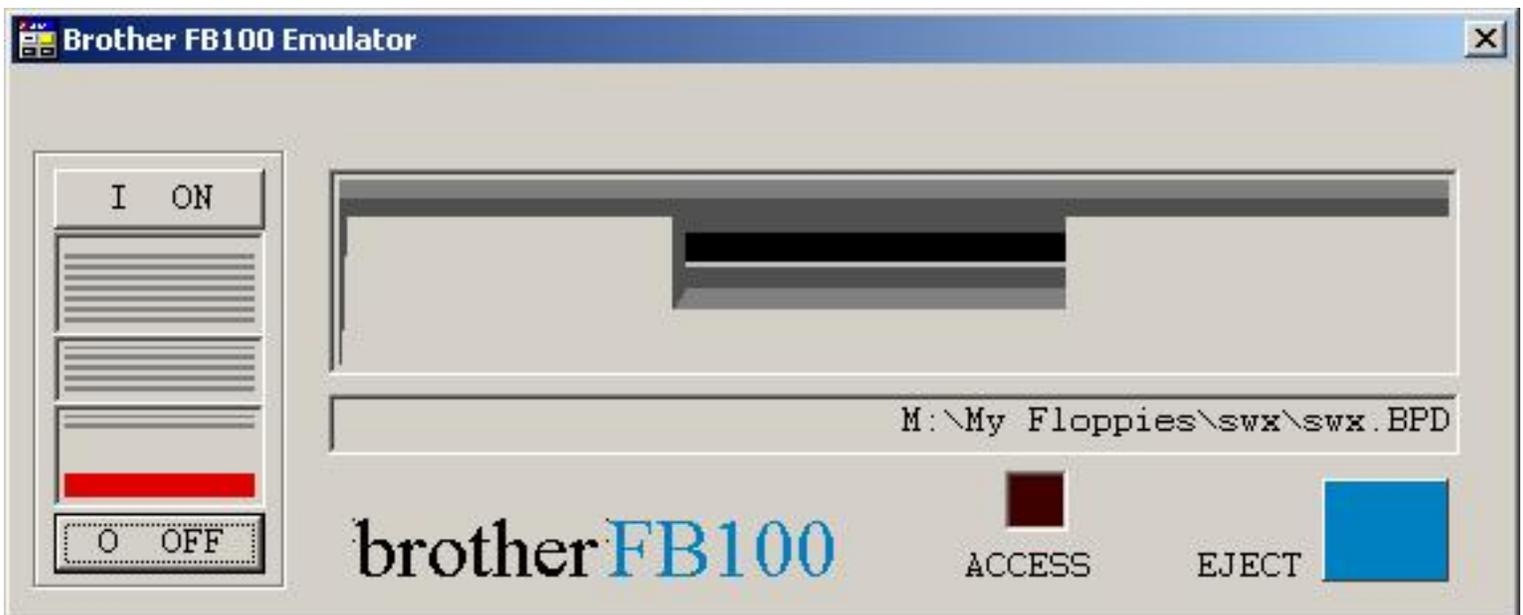
You can load a Brother Pattern Disk file in the Brother FB100 Emulator by pressing the large **LOAD** button. You are invited to specify the name of the Brother Pattern Disk file in the dialog below.



Press **Cancel** if you didn't want to load a Brother Pattern Disk after all.

Select a Brother Pattern Disk file as you can see above. The last used Brother Pattern Disk file (if any) will be preselected.

Press **Open** to load the Brother Pattern Disk file.



The dialog above shows the Brother FB100 Emulator with a Brother Pattern Disk Loaded. You can

now use the Brother FB100 Emulator for transfer of patterns from or to your knitting machine or PPD.

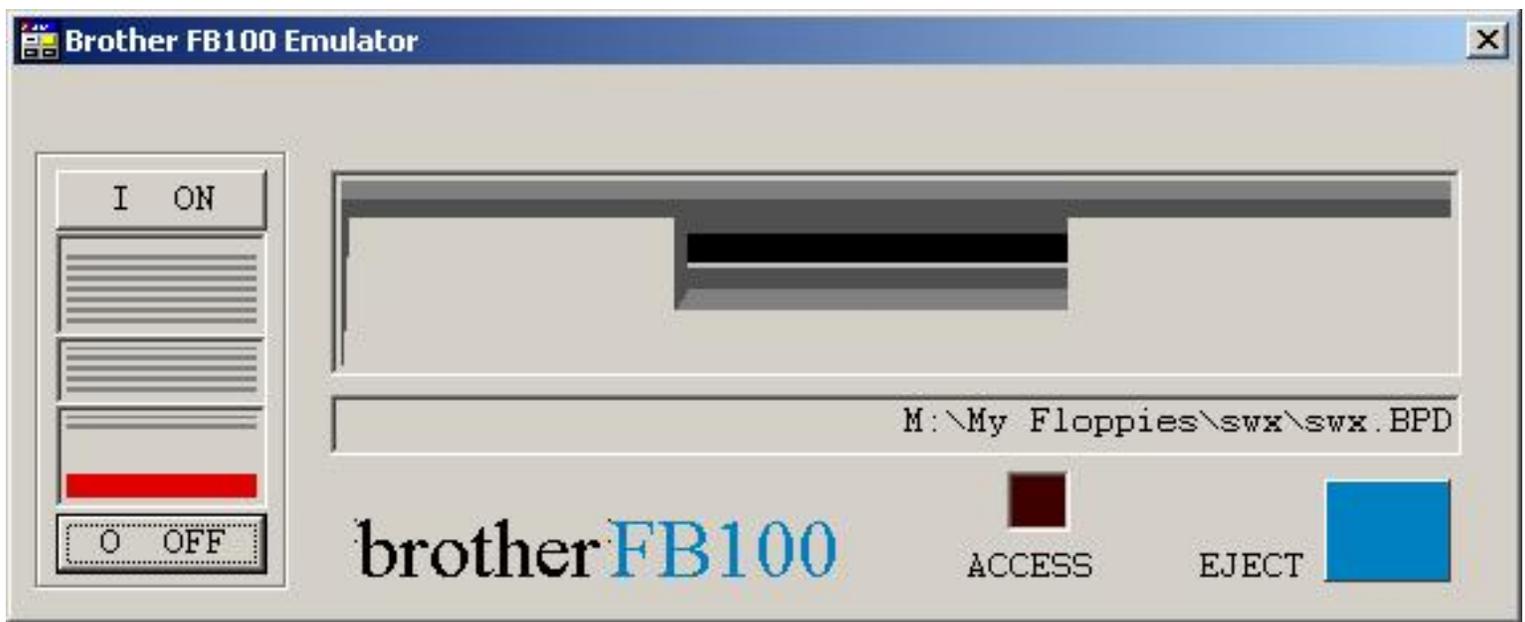
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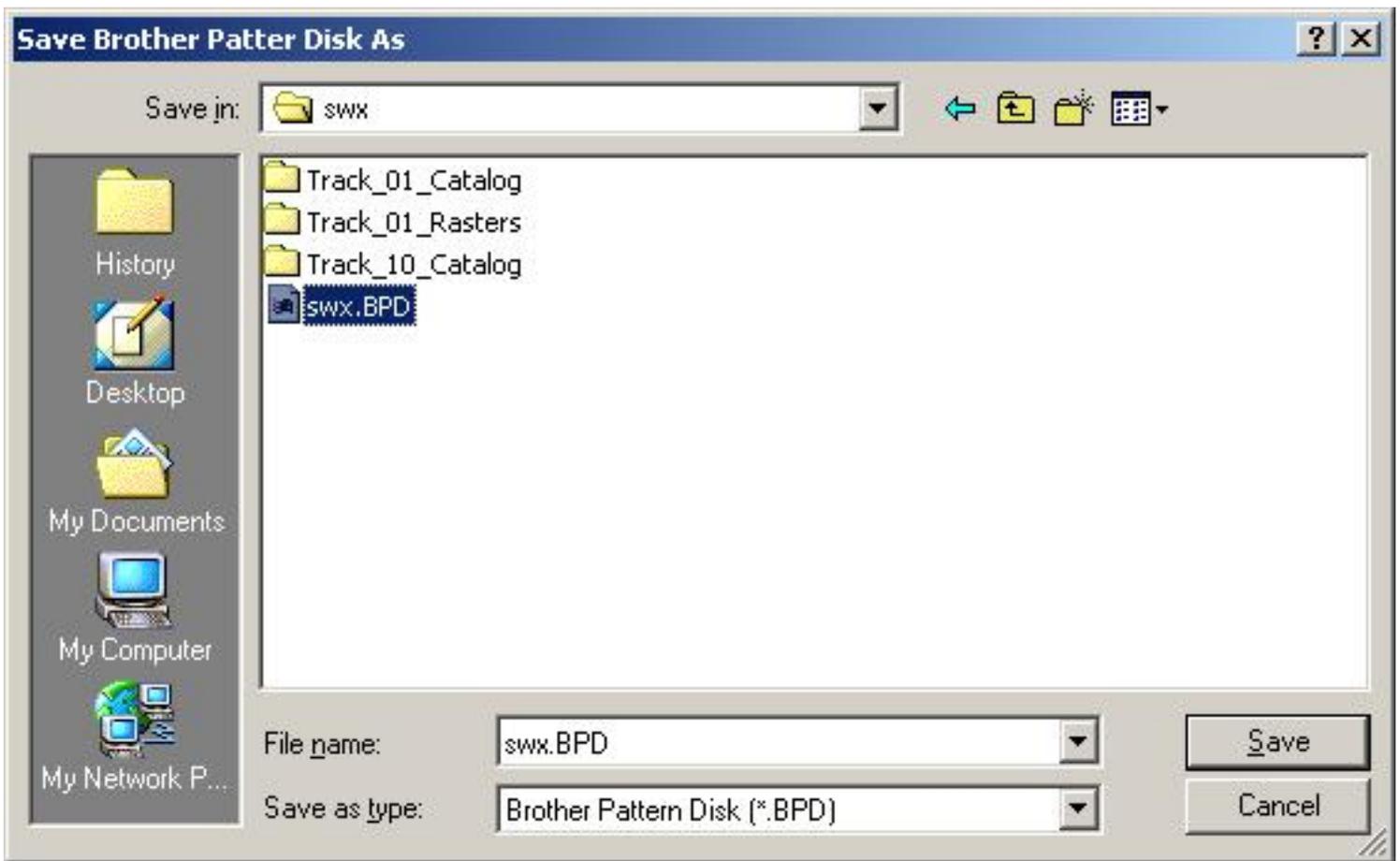
# FB100 Emulator

## Emulator Eject

When you're done with a Brother Pattern Disk, you need to eject the Brother Pattern Disk file from the Brother FB100 Emulator. This is equivalent to removing a floppy from the Brother FB100 floppy disk drive using the EJECT button.



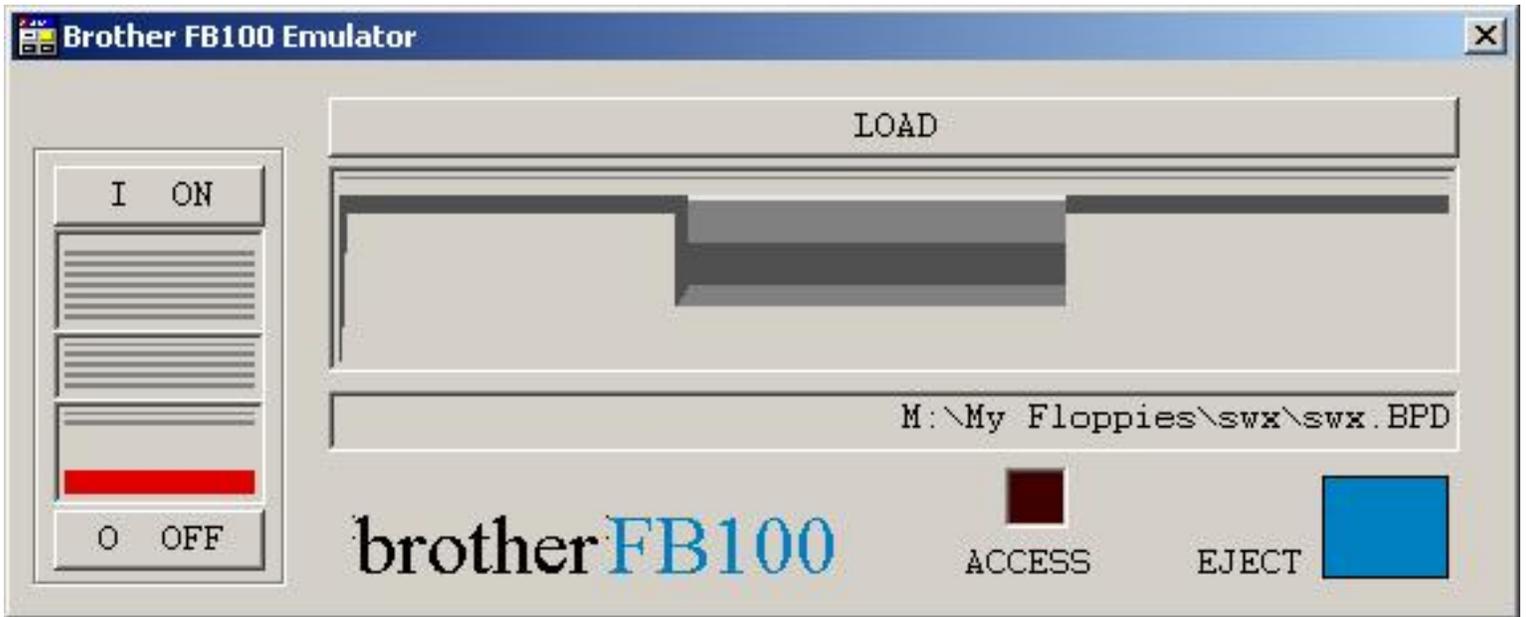
You can eject a Brother Pattern Disk file from the Brother FB100 Emulator by pressing the blue **EJECT** button. In case you have made changes to the Brother Pattern Disk file, via saving patterns on the knitting machine or PPD or via formatting or via removing patterns, you are invited to specify the name of the Brother Pattern Disk file in the file save dialog below. The name of the loaded Brother Pattern Disk File is preselected. At this point you may choose for a different folder and/or a different name for the Brother Pattern Disk file to be saved.



Press **Save** to save the Brother Pattern Disk file.  
Press **Cancel** if you don't want to keep the changes



In case you pressed **Cancel** when invited to save the changes, you are warned that you still have unsaved data. Press **Yes** if you want to discard the changes, press **No** if you changed your mind and want to keep the changes anyway. In case you press **No**, the Brother Pattern Disk file will stay loaded. You can press the blue **EJECT** button to have another go at ejecting the Brother Pattern Disk file.



When ejecting is completed you see that dialog above. You can load a new or the same Brother Pattern Disk file or turn off the Brother FB100 Emulator.

Note: when you're working on a Brother Pattern Disk file, the changes are not written immediately like when using a Brother FB100 floppy disk drive. Saving is postponed until you eject the Brother Pattern Disk file. As a result, you can undo changes very easily by not saving the changes. In case you want to save changes, you can eject the Brother Pattern Disk file and load the same file again.

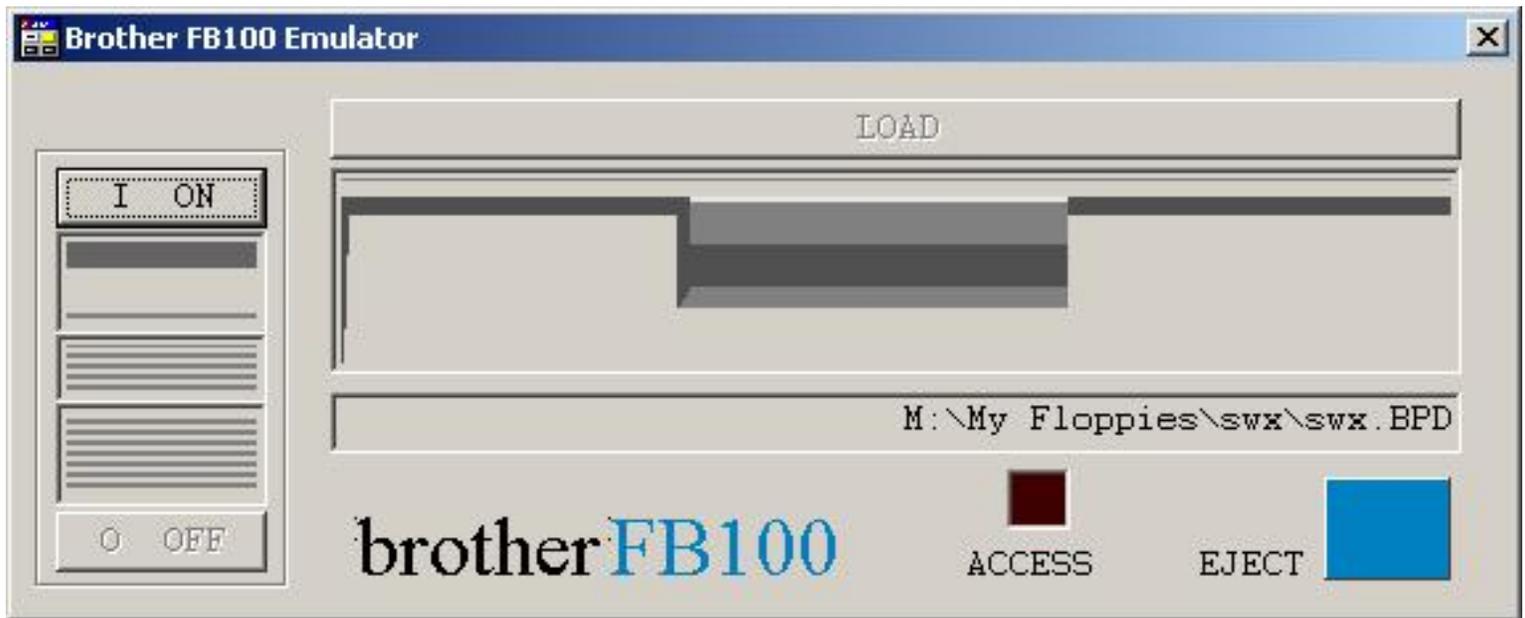
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# FB100 Emulator

## Emulator Close

You can close the Brother FB100 Emulator when the Brother FB100 Emulator dialog looks like the one below.



Press the cross in the top right corner of the dialog to close the Brother FB100 Emulator.



In case the Brother FB100 Emulator is still turned on, and you try to close the Brother FB100 Emulator, you get a message to turn off the disk unit. Turn off Brother FB100 Emulator by pressing the **O OFF** button and press the cross again.

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# FB100 Emulator

**Close**

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You close the Brother FB100 Emulator application by pressing the **Close** button or on the cross in the right top corner of the dialog box.

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# FB100 Emulator

## Getting Started

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### Parts list

1. [BL1USB](#) or [BL5USB](#)
2. CD ROM with Brother FB100 Emulator software, test program and USB drivers

### Software Installation

Note: INSTALL THE SOFTWARE BEFORE YOU CONNECT THE BL1USB OR BL5USB TO THE COMPUTER

1. Put the USBLinks installation CD in the CD ROM drive
2. The USBLinks installation program will start automatically
3. When autorun is not enabled on your computer, look for the CD and double-click autoplay.exe in the root off the CD
4. Follow the instructions on the screen, the InstallShield installation wizard will guide you through the process

Note 1: It is recommended to install Brother FB100 Emulator to the suggested folder.

### Hardware Installation

1. Connect the [Convex](#) connector of the BL1USB or BL5USB cable to the port at the backside of your knitting machine or PPD
2. Connect the [A](#) connector of the BL1USB or BL5USB to a free USB port on your computer
3. Check the green light to go on and flash one time green/red, and stays off afterwards.
4. Windows will indicate "New hardware found"
5. Preferably let Windows search for the drivers
6. If not found, tell Windows that the drivers are on the CD ROM
7. If Windows indicates that the drivers are not compatible, press "Continue anyway"
8. The USB Serial Converter is now installed

9. Windows will indicate again "New hardware found"
10. Preferably let Windows search for the drivers
11. If not found, tell Windows that the drivers are on the CD ROM
12. If Windows indicates that the drivers are not compatible, press "Continue anyway"
13. The USB Serial port is now installed
14. The installation has finished now
15. On some systems a restart is required after the installation of the USB drivers

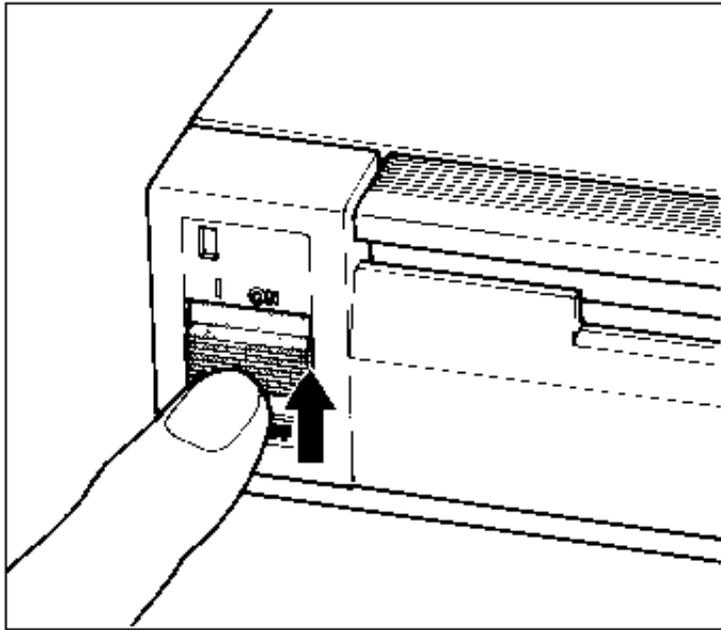
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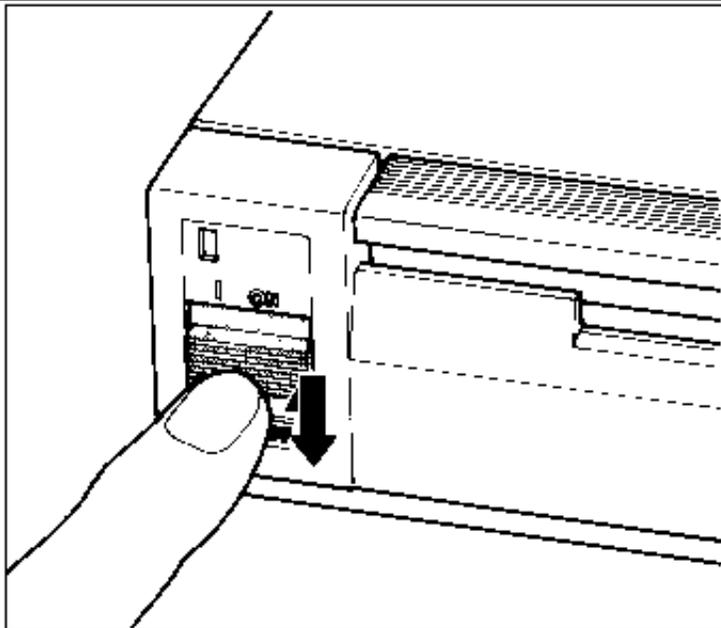
# FB100 Emulator

## Compare physical with Emulator

Brother FB-100 floppy disk drive



Turn on FB-100:  
Slide the switch to ON position



Turn off FB-100:  
Slide the switch to OFF position

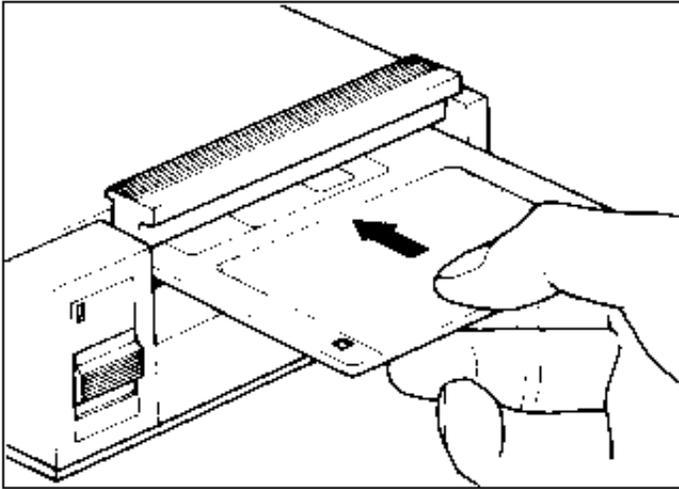
Brother FB100 Emulator



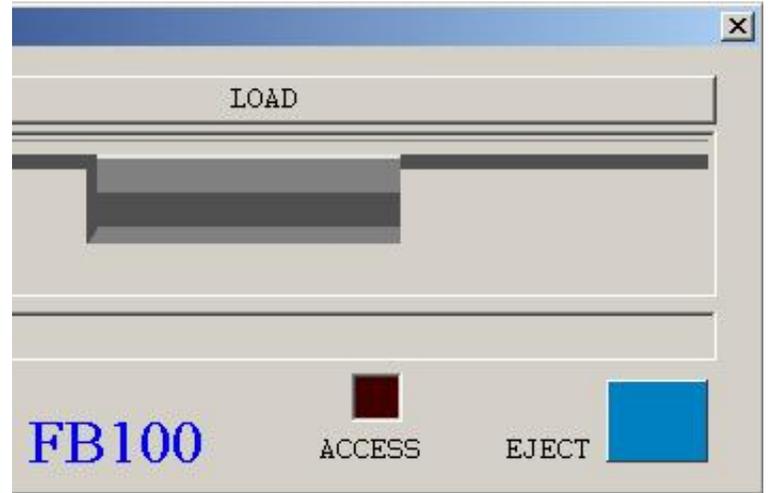
Turn on FB100 Emulator:  
Press the I ON button



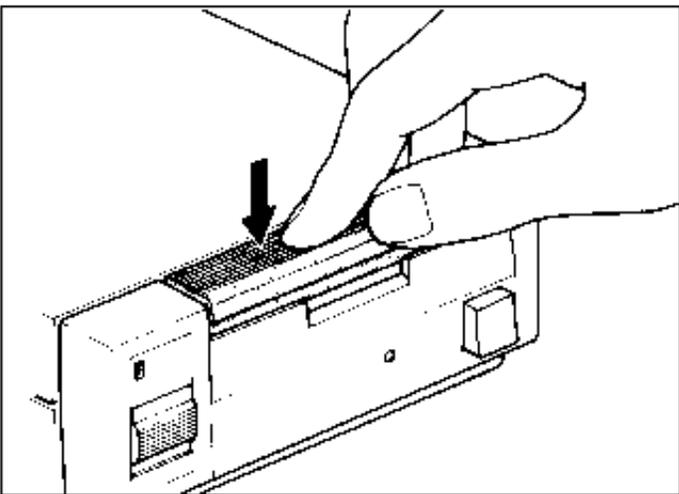
Turn off FB100 Emulator:  
Press the O OFF button



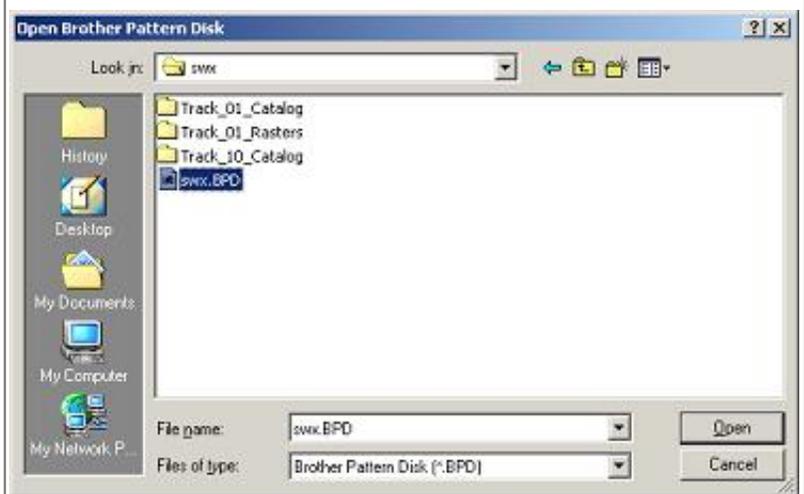
Insert disk in FB-100  
Slide disk gently in the FB-100 slot



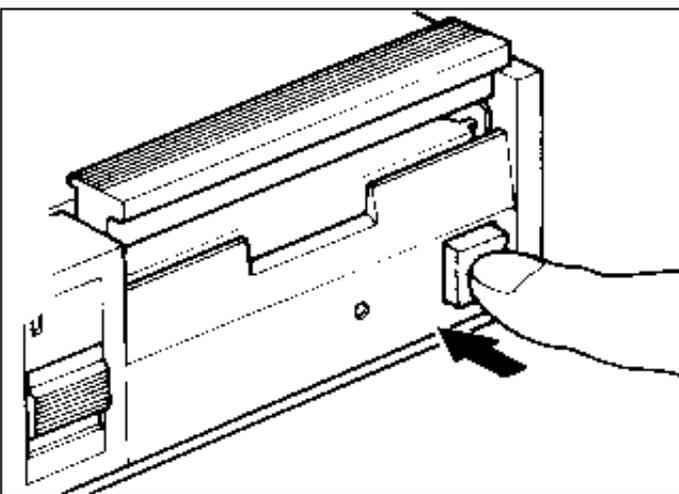
Load disk for FB100 Emulator:  
Press the LOAD button



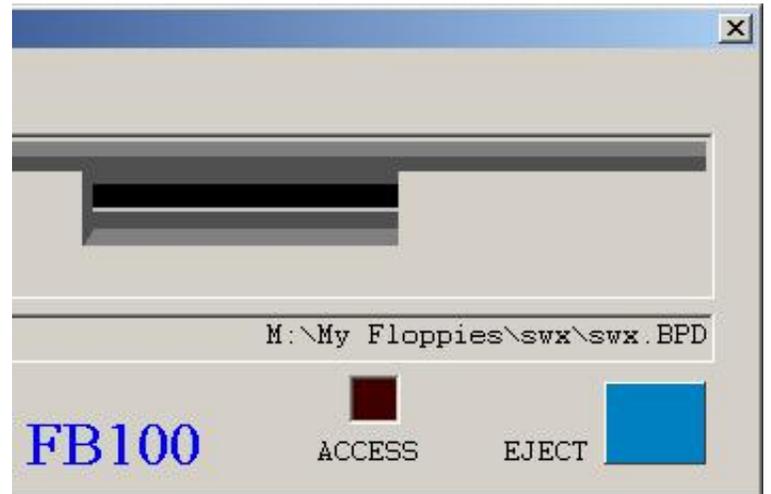
Load disk in FB-100:  
Close the lid of the FB-100



Load disk in FB100 Emulator:  
Select a BPD file and press the Open button



Eject disk from FB-100:  
Press the blue EJECT button



Eject disk from FB100 Emulator:  
Press the blue EJECT button



# Knit and Sew

## Dialog Manager

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Dialog Manager is, as its name suggests, a package that manages dialogs. Dialog Manager makes the life of the Windows dialog programmer easier by taking away the boring Windows dialog hassle, enabling the programmer to concentrate on user functionality.

Dialog Manager also provides additional functionality on top of the Windows dialog functionality.

The visible additional features used in this application include:

- Hatched buttons: a button is dependent on the contents of one or more fields, where the fields don't meet the expectations of the button. The user can click a hatched button to find out which fields don't meet the expectation of the button.
- Field coloring: when a button has the focus, fields on which the button depends are colored to show the user that user action is required.
- Propagation: when a row in a table is selected, the fields in the row are propagated into individual fields.

# Knit and Sew

## Dialog Manager - Introduction

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A Dialog Manager application presents you with one or more dialogs.

[Getting Help For a Dialog.](#)

A dialog can contain:

- [Buttons](#)
- [Single-line Fields](#)
- [Multi-line Fields](#)
- [TableBoxes](#)
- [TickBoxes](#)

You can use the mouse or the keyboard to navigate a dialog.

[Access Keys](#)

[Scroll Bar](#)

[Initial Focus and Tab Order](#)

[Coloring](#)

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# Knit and Sew

## Dialog Manager - Buttons

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A dialog normally contains an **OK** button, a **Cancel** button, and one or more action buttons. You can 'press' a button with a mouse click or with the keyboard:

- Pressing the **Enter** key is equivalent to pressing the default button, which is the button with a heavy dark border. The default button is the one that has the [focus](#), or, if no button has the focus, the one set up as the default. The Dialog Manager makes the last button pressed the default.
- Pressing the spacebar is equivalent to pressing whichever button has a dotted rectangle around its text label.
- If a button's label contains an underlined character, pressing the **Alt** key together with that character's key is equivalent to pressing that button.

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# Knit and Sew

## Dialog Manager - Fields

---

A single-line field is for display or entry of a character string. When a Dialog first displays, a field in which you can enter text is usually empty, but in some cases it contains default text. When a field allows you to enter text, you can click to place the cursor within the existing text and use the keyboard to edit it. The **Home** key moves the cursor to the beginning of the string, and the **End** key moves it to the end. The **Delete** key deletes characters following the cursor, and the **Backspace** key deletes characters before the cursor. You can highlight text by dragging the cursor across it. The **Delete** key deletes highlighted text, and typing new text replaces highlighted text.

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# Knit and Sew

## Dialog Manager - Multi Line Fields

---

A multi-line field is for display or entry of a character string. When a Dialog first displays, a field in which you can enter text is usually empty, but in some cases it contains default text. When a field allows you to enter text, you can click to place the cursor within the existing text and use the keyboard to edit it. The **Home** key moves the cursor to the beginning of the string, and the **End** key moves it to the end. The **Delete** key deletes characters following the cursor, and the **Backspace** key deletes characters before the cursor.

You can highlight text by dragging the cursor across it. The **Delete** key deletes highlighted text, and typing new text replaces highlighted text.

Pressing **Control+Enter** moves the cursor to a new line.

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# Knit and Sew

## Dialog Manager - TableBox

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A TableBox displays a list of items. Scroll through the list using the scroll bar, and select an item in one of these ways:

- double click on it
- click on it and press **Enter**
- use the arrow keys to highlight it, and press the spacebar

The colour of the table changes on mouse-up (when the focus changes) and on mouse-down (when the selection changes). You can deselect a row by pressing the **Delete** key.

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# Knit and Sew

## Dialog Manager - TickBox

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A TickBox is used to enable or disable an option. The option is enabled when an X appears in the TickBox and disabled when the TickBox is empty.

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# Knit and Sew

## Dialog Manager - Access Keys

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An access key lets you use the keyboard to activate a [single-line field](#), [multi-line field](#), [Button](#), [TickBox](#), or [TableBox](#) in a dialog. When a character in the item's label is underlined, you can activate the item by pressing **Alt** together with the key corresponding to that character.

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# Knit and Sew

## Dialog Manager - Scrollbar

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A scrollbar appears at the right or bottom edge of a [TableBox](#) or [multi-line field](#) when its contents are not completely visible. Each scroll bar contains two scroll arrows and a scroll box that enable you to scroll through the contents of the TableBox or field.

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# Knit and Sew

## Dialog Manager - Initial Focus and Tab Order

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When a control is active, it is said to have the focus, which means that you can act on it. For example, if a field has the focus, you can type in it.

You can use the Tab key to move the focus and activate controls in a dialog. The tab order is the order in which controls become active when you use **Tab**. Using **Tab** is particularly useful and natural for moving from one text field to another.

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# Knit and Sew

## Dialog Manager - Coloring

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Coloring or hatching of fields, tables, or buttons occurs when some action is required before a button can be pressed. Read-only fields that are dependent on an unsatisfied button are hatched whenever the button is grayed.

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# Knit and Sew

## Dialog Manager - Get Help For a Dialog

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When the Dialog Manager presents you with a dialog, you can get help by pressing F1. This displays a dialog where you can choose (when available):

- General displays this Help
- Forms displays Help for the application
- Field displays Help for the field that has the focus

You can also use the Forms key or Field key to go directly to the corresponding Help.

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