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\_\_\_\_\_. \_\_\_\_\_SwitchBack Users Guide

Version 2.3.3

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What is SwitchBack?

SwitchBack is a utility program that synchronises two folders, so that both  
folders have a copy of the most recent version of their files. The two  
folders can reside on the same volume, on two different volumes, or indeed  
on two different computers connected by a network.

It has been designed principally for those people with two computers  
(especially desktop and PowerBook) who need to ensure that they have the  
most recent version of their documents available to them.

It also functions well as a simple backup utility for people with one  
computer. For example, a folder residing on your main hard disk can be  
linked to a folder residing on a floppy disk.

SwitchBack has been designed to use many of the features of System 7,  
however, it can work with System 6.0.4 and later. Some of the dialogs may  
be different under System 6.0, and some features may only be available  
under System 7. It is recommended that you use SwitchBack with the most  
recent version of the System software (at the time of writing **System**  
7.1).

## Basic Features of SwitchBack

For a more detailed look at the features, see the Advanced Features section  
below. Listed here are some of the more commonly used features that  
SwitchBack offers:

- Alias resolving
- Auto start option
- Auto-mounting and unmounting of remote volumes
- Balloon help
- Background copying and notifications

- Collision detection
- Compatible with all system versions since 6.0.4
- Copies up to 3 times faster than the Finder
- Detection of network time discrepancies
- Error notification and optional log
- Report window allowing you to see what SwitchBack plans to backup
- Stationery-aware
- Status bar to indicate the current progress of SwitchBack
- Use of System temporary memory
- Works with DOS disks

## Quick Start

To synchronise the contents of two folders, so that both folders have a copy of the most recent version of their files, you first need to specify a source and a destination folder. These folders are selected by clicking the icon above the word "Source" (to specify the source folder) and the icon above the word "Destination" (to specify the destination folder). When you have successfully selected either the source or destination folder, the words "None selected" will be replaced with the pathname of that folder.

When (and only when) you have specified both a source and destination folder, the Backup button will become enabled. Clicking the Backup button, or pressing the Return or Enter key, starts the synchronisation process. A status bar appears giving an explanation of what SwitchBack is currently doing. As the synchronisation proceeds, the status bar will grow until it finally reaches the right hand end, signalling completion. After the synchronisation is completed a chime will sound, if you have Sound checked in the preferences dialog.

Of course, this is just one of the many uses of SwitchBack. Synchronising two folders (whether they be on the same or different computers) is easy to see above, but to harness the full power of SwitchBack you can make use of its many features as described in the next section titled Advanced Features.

## Advanced Features

### Also Backup in Reverse


This option, checked as a default, enables full synchronisation between two folders. That is, the contents of both folders will be the same upon completion of the synchronisation. If this item is left unchecked, the

destination folder is the only folder that is updated.

#### Report Before Backup

With this item checked, a backup will produce a report detailing all the files to be updated. Usually you would scan this report to ensure that the synchronisation would proceed as you expect. You may then either cancel the proposed synchronisation or continue. Clicking the Cancel button stops the synchronisation process and returns you to the main SwitchBack window. Clicking the Backup button allows the synchronisation to proceed. Note that for very large backups it is possible to exceed the capacity of the report window.



#### Start Automatically

When checked in a saved document, the synchronisation will automatically start when the document is double-clicked. If you have a regular backup, you can set the required source, destination, exclusions etc. and save the document with this item checked. In future, when the document is opened, the synchronisation will begin without you having to press the Backup button. Opening the document from within SwitchBack using the Open  item in the File menu will not cause the synchronisation to start automatically. Also, if the Command key is down when a document is double-clicked, the synchronisation will not automatically start.

#### Exclude Items

Clicking this button brings up a window with more options. This set of options allows you to exclude certain files and folders from the synchronisation. Command-E is a keyboard equivalent for this item.


#### Add

This button allows you to select a file whose type will be added to the list shown to the left of the Add  button. More file types can be added to this list by clicking the Add  button. Any file whose type matches one in the list will be excluded from the synchronisation. Command-A is a keyboard equivalent for this item.

#### Remove

This button, initially disabled, allows you to remove items that you have previously added to the list of types. Simply select an item to remove from the list, then click the Remove button. Command-R is a keyboard equivalent for this item.

#### Exclude Applications

This checkbox adds or removes applications from the exclusion list. This is the same as using the Add  button to choose an application as one of the excluded types.

#### Exclude SwitchBack Documents

This checkbox adds or removes SwitchBack documents from the exclusion list. This is the same as using the Add button to choose a SwitchBack document as one of the excluded types.

#### Exclude Invisibles

With this item checked any file that is invisible in the Finder will be excluded from the synchronisation.

#### Exclude Aliases

With this item checked aliases will be excluded from the synchronisation. When you are synchronising two folders, it is often not important to copy alias files since they tend to be specific to a particular volume. If the Resolve Aliases item is checked, however, the setting of this checkbox is ignored.

#### Don't Copy Items Starting with

You may type any single character in this text field. If there is a character present in the text field, any file whose name begins with that character will be excluded from the synchronisation. If the text field is empty, this option will not apply.

#### Don't Copy Items Ending with

Similar to that above, any file whose name ends in the character present in the text field will be excluded from the synchronisation. If the text field is empty, this option will not apply.

#### Labels

Clicking this button will bring up a dialog which allows you to exclude items with a certain label from the backup. For example, you could define a label 'Don't Sync' to exclude just some files and folders from the backup. This powerful option is only available with system 7.0 and later. Command-L is a keyboard equivalent for this item.

#### File Collisions

A file collision occurs when it is unclear whether the source or the destination file should be replaced.

Three sorts of collision can occur: one-way; two-way; and date.

A one-way collision can occur when the Also Backup in Reverse checkbox is unchecked. In this case a collision will be flagged if the destination file was modified more recently than the source file.

A two-way collision can occur when the Also Backup in Reverse checkbox is checked. In this case a collision will be flagged if both the source and

destination files have been modified since the last backup. Note that if both source and destination files have the same modification date, a collision will not occur, because no file will be overwriting another.

A date collision occurs if any file has been modified after the current system time.

When a collision occurs, the report window will automatically appear, detailing all the collisions and the proposed backup. SwitchBack will always replace an older file with a newer file, and you may therefore choose to either continue or cancel the proposed backup.

Please read the Technical Comments section below for information regarding the way SwitchBack handles network time discrepancies.

## AppleScript

SwitchBack supports the required AppleEvent suite, and is fully AppleScript-aware. You can use AppleScript to execute a series of backups automatically. Programs that permit scheduled execution of scripts can permit you to do a daily backup, and then shut the machine off. This capability is very powerful, and extends SwitchBack's usefulness.

The following script launches SwitchBack (if it is not already running), brings it to the front and opens four backup documents in sequence. These documents should be set to start automatically. Once completed, SwitchBack is told to quit. The final command sends a "Shut Down" event to the Finder to turn the machine off.

```
tell application "SwitchBack 2.3.3"
    activate

    open alias "Flying Disc:Backups:Data"
    open alias "Flying Disc:Backups:Development 1"
    open alias "Flying Disc:Backups:Development 2"
    open alias "Flying Disc:Backups:Libraries"

    quit
end tell

tell application "Finder" to send event FNDRshut
```

If you are using AppleScript, you should set SwitchBack's preference After Auto-Start to Do Nothing. In this way SwitchBack will remain the frontmost application for each document opened, while AppleScript controls it from the background.

## Apple Menu

### About SwitchBack

This gives you some information about the application, the registered owner and authors. It also contains a button you can click to give some specific information about your hardware and related system software (useful if you should require any technical assistance).

### Help

This displays this simple on-line help window.

## File Menu

### New

Creates a new document. Each document contains information on which folders are the source and destination folders, what items to exclude from the synchronisation, and other information selected from the Special menu.

### Open ⌘

Opens an existing SwitchBack document. All this information was previously specified by the user and saved using the Save or Save As ⌘ commands detailed below.

### Close

This will close the document, asking you if you want to save any changes first.

### Save

Choosing this item saves the changes you have made to the document on to disk. If the document has not previously been saved you will be asked to name the file first. This item will be disabled if no changes have been made to the document.

### Save As ⌘

Allows you to save the file to disk under a new name.

### Preferences ⌘

This displays a small dialog with four options:

Use Temporary Memory **D** SwitchBack will make use of any available memory that isn't currently in use by the system or any other open applications. This speeds up the performance of the synchronisation, but only works with System 7 or later. Under System 6 simply increase the partition size.

Sound ☐ if checked, a sound will play when the synchronisation has completed.

Unmount Volumes After Backup ☐ when checked, any required volumes that are not mounted when the backup starts will be unmounted when the backup is complete.

Log errors to Report Window ☐ when checked, errors are not reported as they occur, but are listed in a report window after the backup has completed. In this way any errors will not halt an unattended backup.

After Auto-Start ☐ this pop-up menu allows you to specify behaviour following opening and executing a document that is set to start automatically. Do Nothing will leave SwitchBack running as the frontmost application. Bring Finder To Front will leave SwitchBack running, but force the Finder to the front. This option is available only under System 7 and later. Quit forces SwitchBack to quit following completion of the backup.

#### Quit

Selecting this option allows you to quit SwitchBack. If you have an unsaved document currently open, you will be asked whether you want to save it first.

#### Edit Menu

Standard editing functions. See your Macintosh Users Guide.

#### Special Menu

##### Update Existing Files Only

When synchronising two folders, only the files that are present in both those folders are synchronised ☐ all other files are left unchanged.

##### Delete Obsolete Items

Any file that is in the destination folder, but not in the source folder, is deleted upon completion of the synchronisation. This option is rendered useless when the Also Backup in Reverse option is enabled ☐ for obvious reasons.

##### Resolve Aliases

With this option checked the target that the alias refers to will be copied instead of the alias file itself. If the target of the alias resides on an unmounted volume, that volume will automatically be mounted. This may require you to insert a floppy disk, or enter a username and password for a



shared volume. This option enables quick and efficient backing up of files over a network. When performing a one-way backup it does not really matter what the name of the alias is. However, with a two-way backup, or when deleting obsolete items, it is very important that the alias name matches the name of its target. This is because SwitchBack relies on names to compare files and folders. It would have no way of knowing, for example, that a source filename of "My Doc" should be compared with a destination filename of "My Doc Alias", short of resolving all aliases in that folder.

#### Projector Aware

This item applies to users of the Macintosh Programmer's Workshop (MPW). Any MPW files that are checked out as read-only will not be overwritten.

#### Copy Folder Attributes

The Finder information about each folder is not normally retained. With this item checked, the folder size, window position etc. will remain the same in both the source and destination folders.

#### Balloon Help Menu

Available with System 7.0 and later.

#### Show Balloons/Hide Balloons

Toggles the balloon help on or off. Balloons describing the function of each element of SwitchBack are shown only if the "SwitchBack Help" file is present in the same folder as the SwitchBack application.

#### SwitchBack Help

Performs the same function as selecting the Help item from the Apple menu.

#### Technical Comments

When synchronising machines over a network, you may notice that SwitchBack treats two identical files as having different modification dates. This can occur when the clock setting of the two machines differs by more than 10 minutes. Usually the clock of either the server or the local machine has drifted. Simply set the clock using the "Alarm Clock" control panel. Sometimes, a machine has been set up so that the time is correct, but the machine location is wrong. Check the "Map" control panel if this is a problem, and set the machines to the correct time zone. If you do not fix this discrepancy, unpredictable results can occur. It is possible to lose data should an older version of a file be viewed incorrectly by the system as more recent. SwitchBack performs an internal check every time it accesses a remote volume, and brings up a warning dialog if this problem is encountered.

Pathnames are currently limited to 255 characters. If you need to specify a longer pathname, you can use the alias resolving feature to access folders that are many levels deep.

System files, such as 'EVM Storage' and 'Desktop DB' are ignored by SwitchBack.

Under System 6 or if temporary memory is not enabled, you should increase SwitchBack's partition size in order to cope with large files. A smaller partition size will result in slower performance.

When backing up large disks with folders nested many levels deep, you may find 'out of memory' or 'heap collision' errors. When this occurs, SwitchBack has run out of room trying to keep track of all the folders. Simply increase the partition size if this is a problem.

#### How To Register

SwitchBack is not free, it is shareware. If you wish to use it, you should send US\$25 or currency equivalent to the authors at the following address. By sending in the money you will encourage further improvements to the program.

Please send your registration to:

Glendower Software Ltd.  
12, Grosvenor Terrace  
Wadestown  
Wellington 1  
New Zealand.

In return you will receive a number calculated from your name that will allow you to register your copy of SwitchBack.

Commercial and education site license options are available and popular. Please contact the authors at the above address for further information. Email addresses are listed in the warranty section.

The SwitchBack distribution archive may be included on CD and online distribution systems, provided it is not altered in any way.

#### Warranty

Glendower Software Ltd. makes no warranty as to the performance of

SwitchBack. The user accepts the program as it stands. Glendower Software Ltd. will make every effort to fix any bugs found in the software but is not obligated to do so. Glendower Software Ltd. is not liable for any loss of data or profits associated with the use of SwitchBack. In no event will Glendower Software Ltd. be liable for more than the price paid for SwitchBack.

We are always keen to receive feedback from the Macintosh community. You can reach the SwitchBack development team at the following email addresses:

dave.davies-payne@stonebow.otago.ac.nz  
jeff@stonebow.otago.ac.nz  
glenn.anderson@stonebow.otago.ac.nz

Or contact Glendower Software Ltd. at:

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New Zealanddevelopment team at the following email addresses:

dave.davies-payne@stonebow.otago.ac.nz  
jeff@stonebow.otago.ac.nz  
glenn.anderson@stonebow.otago.ac.nz

Or contact Glendower Software Ltd. at:

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