Swing User's Guide

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Contents

1 INTRODUCTION

SWING is a very powerful VAX/VMS utility for displaying the graphic representation of the VMS directory structure on any terminal that can support the VMS SMG (Screen Management) routines - that is primarily the VT100, VT200 and VT300 series of terminals or any PC terminal emulation of the above. SWING is designed to make life easy for a user who frequently performs file or directory operations within his or her directories.
SO GOODBYE DCL !!!
It is designed using the same philosophy as the Personal computer file management packages, such as XTREE-GOLD and PCTOOLS, where the user should not (doesn't need) to know operating system commands to manage directories and files.

SWING displays the top eight directory levels of the user's directory structure. If there are more than eight levels a diamond is displayed in the right-most column indicating that there are non-displayed directories.

You can specify optional parameters - the starting directories. These are the directory structures you wish to display and manipulate. The specifications may be separated by commas or spaces. *e.g.*

- $ Swing
- $ Swing SYS$LOGIN
- $ Swing SYS$LOGIN,SYS$EXAMPLES,SYS$LIBRARY
- $ Swing SYS$LOGIN SYS$EXAMPLES SYS$LIBRARY
- $ Swing SYS$LOGIN,SYS$EXAMPLES SYS$LIBRARY

There is a two level help facility within SWING. Quick menus are available via the ? option. Standard VMS help is available via hitting H (or the [Help] key on LK201 keyboards).

Each SWING command description will have its equivalent DCL command (ie. the command you type at the '$' prompt), so that any existing VAX users can identify with the SWING command set. This is identified in the text as a line starting with 'DCL equiv:'.

1.1 CAPTIVE ACCOUNTS

If you are using Swing from a Captive Account, then a number of functions are disabled for security reasons. In particular, the goal was to prevent doing anything outside the current directory structure and disable execution of arbitrary DCL commands.

If you see the following message, then this means that you are in a captive environment:

The following functions have been disabled for Captive Accounts:

Opt	Description	DirMgr	FilMgr
I	Introduce dir structure	Yes	N/A
^D	User-defined Optiions	Yes	Yes (See note)
$	Spawn	Yes	Yes
S	Submit to batch	N/A	Yes
>	Import files	Yes	Yes
<	Export files	N/A	Yes
X	Execute file	N/A	Yes

Note that SWING$SAVE should point to a writable directory outside the user's directory structure. This allows the system administrator to configure the user's options file for choice of editor, queues, and key definitions. The user could change them if SWING$SAVE is accessible under their structure and compromise the setup by editing in key definitions. Disabling ^D while retaining the ability for the administrator to customize the key definitions is seen as a feature that must be used carefully.

1.2 MAINTAINERS

Swing was originally developed by Simon Brown from the British Isles during late 1989. He produced about 95% of the program. Since then, it has been maintained by a small group of people, scattered from one end of the earth to the other. If you have any bug reports, new feature requests, or have made changes to the software and wish it to be added into the next release, then please contact one of the following people:

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1.3 WORKSTATIONS

SWING supports workstations to a limited extent. On a workstation it is possible to have windows with up to 64 lines. This is set via

$ set term/page=64

SWING will support terminals of any size with the proviso that the terminal is set to at least 24 lines (the default for a VT100, VT200 ...).

2 GETTING GOING

Getting going with SWING is a painless exercise. Follow the steps below and you'll soon learn how to use the major features.

2.1 SETTING UP LOGIN.COM

SWING ideally needs a directory in which it can keep its own data files. The default directory is SYS$LOGIN (your login directory), but the logical SWING$SAVE can be set to a different directory if desired.

It is better to use SWING$SAVE than have your SYS$LOGIN directory cluttered with seemingly unintelligible files with weird filenames.

If your default device and directory were MY_DISK:[MY_DEVICE], create a new directory MY_DISK:[MY_DEVICE.SWSAVE] via the DCL command

$ create/dir MY_DISK:[MY_DEVICE.SWSAVE]

Then put the following line in you login.com file:

$ define/process/nolog SWING$SAVE MY_DISK:[MY_DEVICE.SWSAVE]

Remember to change MY_DISK and MY_DEVICE to your actual default device and directory.

Now you've done the hard work. Just invoke login.com (@SYS$LOGIN:LOGIN) or logout and login again to define the new SWING$SAVE logical.

2.2 USING SWING

Start swing by typing:

$ SWING [Return]

or SW, SWI or SWIN

and SWING will start up. First of all SWING will create a user-defined options file in SWING$SAVE (or SYS$LOGIN if you decided not to define SWING$SAVE). Then SWING will search your current directory structure, make a record of it in SWING$SAVE, and display your structure on the screen. You'll immediately see the difference between SWING and DCL - your directory structure is shown in 1990s' fashion for the first time! You are now using the DIRECTORY MANAGER.

2.3 COMMAND QUALIFIERS

The following Swing qualifiers (or switches) can be used at DCL:

2.3.1 FILEMANAGER or - F

This command qualifier takes the user directly into the File Manager Screen and bypasses the Directory Manager. e.g. $ Swing /FILE or $ Swing -F

2.3.2 VERSION or - V

This qualifier displays the current version of Swing, and then returns the user to DCL. e.g. $ Swing /VERSION or $ Swing -V It returns the following string: C SWING v3.5.4 (S.J.Brown, M.Akerberg, H.Flowers and others)

2.3.3 HELP or - H

This qualifier displays help for the Swing command line (from DCL) and then returns the user back to DCL. e.g. $ Swing /HELP
or $ Swing -H

It returns the following string:
Usage: swing [-f][-v][-h] [directory][,directory...]
f=file manager first v=version only h=this help

2.4 DIRECTORY MANAGER

Try the cursor keys. You will find that you can move around your structure as easily as you can edit a file. Good-bye SET DEFAULT. Try typing T, B, N (or press [Next Screen]), P (or press [Prev Screen]) as you wish - see how you move around the structure. See Section 3.3 “Moving Around” for more info.

Although this part of the manual will not describe all the features of SWING, we'll run through a few of them here. Move to your top directory (that's where we started all this). Type F. The display changes...

2.5 FILE MANAGER

You are now in the FILE MANAGER - you now see all the files in your top directory.

You can also navigate around the FILE MANAGER with up-arrow, down-arrow, T, B, N (or press [Next Screen]), P (or press [Prev Screen]) as you wish - see how you move around the file list.

You can change the format of the directory information on display by using the left- and right-arrows or typing in directly the format you desire - in the range 0 to 9. Try it and see.

Now we'll leave the FILE MANAGER and return to the DIRECTORY MANAGER by typing Q (for quit).

2.6 ANOTHER DIRECTORY STRUCTURE

You can see more than just your own directory structure - you can add directory structures for other users in your group to the display. The way to do this is by typing I (or press [Insert Here]) to insert another structure. You'll be prompted for a directory specification. For example, type SYS$EXAMPLES and you will see the directory structure of

[SYSHLP.EXAMPLES], which is where all the help and example files for VMS and layered products live. You are also able to do the same to your application directories or other users directories who you are able to share data with. File security is always maintained through normal UIC or identifier protections.

You now have two structures on display. You can move between them as you wish. A quick inter-structure hop can be made by moving to the left-most column and pressing the up- and down-arrow keys to move up and down the display.

When you've had enough of (say the) SYS$EXAMPLES structure, you can remove it from your display. To do this, move to any directory in the structure. Press the [Remove] key (also above the cursor keys) (or type k). You'll be prompted to check that you wish to remove this structure from the display - type Y, and the structure will disappear. You'll be back in your own directories.

2.7 DEFINING AN EDITOR

You can edit files with SWING when you're in the FILE MANAGER. Before you do so it's best to define the editor you wish to use. It's not essential that you define your editor first, as SWING will prompt you for the name of the editor you wish to use.

Type ^D (Ctrl/D). The USER-OPTIONS window appears. A few lines down there is an entry for the editor that will be invoked whenever you decide to edit a file. Use the down-arrow key to move to this line, and press the [Space Bar]. You'll now be prompted for the editor you prefer. If you prefer the EDT editor enter EDT, if you prefer the Text Processing Utility (EVE, or your personal or site-specific flavour) enter TPU.

Now type E to return to the DIRECTORY MANAGER and then F to enter FILE MANAGER. You're now ready to edit your first file with SWING.

Move the cursor ('->' on the left-hand side of the screen) so that it appears by the file you wish to edit, type E and you'll be in the editor. Exit from the editor as you would normally do and you're back at the file manager screen.

2.8 CUSTOMISING KEYS

You can define any of the grey keys on the top of the keyboard (F6 - F20) and the numeric keypad on the right of the keyboard (PF1 - PF4, 0 - 9, the MINUS, COMMA and ENTER keys) as you wish.

Here we will define F11 to perform a SHOW USERS.

Type ^D (Ctrl/D) by holding down the 'Ctrl' key (on the left hand side of the keyboard, and while holding it down, hit the letter D). The USER-OPTIONS window appears. Move down the window, and you'll come to the entry "func. key F11". Press the [Space Bar], and enter:

SHOW USERS ! [Return]

The ! is explained later in this manual. Then type E to leave the USER-OPTIONS. Press F11, and you'll be prompted to confirm a SHOW USERS command. Type Y, and you'll see that a new window appears in which your SHOW USERS command executes.

Press any key to return to the File Manager screen.

2.9 THE DIRECTORY STACK

SWING maintains a stack of directories as they are 'visited'. A directory is said to be 'visited' when the File Manager is invoked in that directory. It is possible to cycle through these directories in both the Directory Manager and the File Manager using the [Select] and [Find] keys (on LK201 keyboards) thus reducing keystrokes to move between your favourite directories.

SELECT moves you to the directory 'visited' prior to the currently displayed directory, FIND moves you to the directory you 'visited' prior to the currently displayed directory (i.e. undoes the last SELECT).

The directory you are in goes to the top of the stack when you perform any operation in the FILE MANAGER other than SELECT or FIND.

A directory disappears from the stack either when the FILE MANAGER detects that there are no files in the directory or when a more recently accessed directory pushes this directory off the stack.

Thus the stack is ordered with the most recently used directories at the top.

Pressing [Select] when at the bottom of the stack takes you to the top of the stack, similarly pressing [Find] when at the top of the stack takes you to the bottom of the stack[1].

2.10 NOW READ THE MANUAL

You're under way. Now read the rest of this manual, trying the commands as they are described. I hope you find SWING a labour-saving utility.

Don't forget the ? quick menus and the help file which is invoked by pressing the [Help] key.

3 GENERAL INFORMATION

Commands are invoked by entering the single keystroke associated with the command. Some of the commands use the LK201 keyboard keys found above the 'arrow keys' on the LK201 keyboard. Typical examples are PREV SCREEN and NEXT SCREEN.

3.1 USER DEFINABLE OPTIONS

Enter ^D (Ctrl/D)

This will display the USER-OPTIONS window.

The user is able to define:

1. The initial display format when the FILE MANAGER is invoked for the first time.
2. The default printer queue for files printed via SWING.
3. The default batch queue for files submitted by SWING.

[1] The stack is not saved between invocations of SWING.

4. The editor used by SWING when editing files.
5. The LK201 function keys F7 through F20 (top of the keyboard) and all the keys on the LK201 numeric keypad (right-hand side).

To change an entry in the USER-OPTIONS window move the cursor opposite the entry to be changed and press the [Space Bar]. The entry being changed is highlighted. When the next definition is complete press [Return]. The original value can be restored by using the R option.

When a user-definable [2] key is entered in the File Manager the name of the current file will be added to the command to be executed. If this is not desirable for the specific command (e.g. the key has been defined as SHOW USERS, and no filename is required) the definition of the key should terminate with an ! (exclamation mark).

Normally, the user will be prompted to confirm that the command is to be processed. If this extra confirmation [3] is not felt necessary a ^ ([Shift] 6) can be appended to the key definition. When a key defined in this manner is pressed the command will execute IMMEDIATELY. So be careful with this option.

The settings are saved in either

SYS$LOGIN:SWING_OPTIONS.INITIAL or

SWING$SAVE:SWING_OPTIONS.INITIAL if SWING$SAVE is defined.

3.2 LOGICAL NAMES

The following logical names are used by SWING

SWING$SAVE - see also SWING SAVE_FILE. This specifies the destination for the files created by SWING.

It is recommended you define this logical if you want SWING's working files kept in a separate directory to your login directory. See the section 2.1 (Setting up LOGIN.COM) for more details.

[2] No file name is added when a user-definable key is entered in the Directory Manager.
[3] The ! and ^ should not be used with the editor or queue definitions.

SWING$HLP - defined when the system boots to point to the help files. Do not change this.

3.3 MOVING AROUND

The user may move around the displayed directory structure using the four 'arrow-keys', or:

^J to move up,

^K to move down,

^H to move left,

^L to move right,

N, n or [Next Screen] to advance by one screen,

P, p or [Prev Screen] to move back by one screen,

T, t to move to Top of the current structure, or if already at the top then to the top of the previous structure (if there is one),

B, b to move to Bottom of the current structure, or if already at the bottom then to the bottom of the next structure (if there is one) and

[Select] and [Find] (LK201 keyboard) can be used to move around an internally held stack of 'visited' directories. A directory becomes 'visited' when the user invokes the FILE MANAGER in this directory. SELECT moves forward, FIND backward.

3.4 PANIC

PANIC - Control-C or Control-Y gets you out of SWING in a hurry, saving the current directory structure if necessary as it does so.

3.5 QUICK MENUS

Enter ?

Quick menus are available throughout SWING whenever the top line of the display shows a ?. The user can select the required option directly from this menu.

3.6 SAVE FILE

SWING only searches the directory structure if a save file cannot be found. SWING looks

1. first in SWING$SAVE:,
2. second in the top directory of the structure being examined,
3. third in SYS$LOGIN:.

If no save file is found SWING searches the directory structure and creates a save file[4] , attempting to store the save file as above. SWING automatically attempts to purge old save files. All save file names end in SWSVE.DAT.

3.7 SNAPSHOTS

Enter *

Throughout SWING a snapshot of the screen may be taken. The resulting file is written to SWING$SAVE if this is defined. If not, then it is written to SYS$LOGIN. Screen snapshot filenames are of the form: SNAPSHOT_xxxxxx.LIS, where xxxxxx is a selection of unique letters and numbers chosen by SWING, to make the snapshot file unique.

Since the special characters used to draw lines cannot always be displayed in a file, the device-independent characters (+,-,|) are used to draw lines.

[4] It is recommended that you make use of SWING$SAVE, as this way you can keep all the files created by SWING in one place.

3.8 VERSION

Enter V or v

Entering V causes the current version of SWING to be displayed on the bottom line of the display.

4 DIRECTORY MANAGER

4.1 BROADCAST MESSAGES

Enter O or o (Old Broadcast Messages)

BROADCAST MESSAGES are trapped by SWING and displayed in a separate window. This window can be recalled at any time if required. Broadcast messages are issued when new mail is received (for example). This window is automatically displayed when there are outstanding messages and the user is in the directory manager or file manager and is also currently being prompted for input.

4.2 CHANGE FILE OWNERSHIP

Enter ~ (Tilde)

This option allows the user to change the ownership of the files contained in the selected directories. Sub-directories are also changed. The user is able specify the new file owner.

DCL equiv: SET FILE/OWNER=new-owner [...]*.*;*

4.3 CHANGE FILE PROTECTION

Enter @

This option allows the user to change the protection on the files contained in the selected directories. Sub-directories are also changed. The user is able specify the new file protection, being initially prompted with the current default file protection.

DCL equiv: SET PROTECTION=(protection-mask) [...]*.*;*

4.4 CREATE

Enter C or c

Create allows the user to create a new sub-directory. The user is prompted for the new directory name. It is not possible to create more than eight directory levels.

The name of the directory must be valid. Invalid names are automatically rejected by SWING.

DCL equiv: CREATE/DIRECTORY [.directory-name]

4.5 DCL

Enter $

DCL spawns a sub-process in the user's current directory (as shown by the main SWING display). All symbols are inherited from the parent process, however the DCL tables will be taken from sys$system, hence any additions made to the DCL tables will not be present in this sub-process.

LOGOUT when finished.

4.6 DEFRAGMENT FILES

Enter %

Defragmentation allows the user to defragment the files in a directory structure. The directories that will be (potentially) defragmented are displayed with a different rendition. The user is twice prompted to confirm that the directories selected and their contents are to be defragmented.

The contents of the files that are processed will be made as contiguous as possible. No header information (other than the pointers in the header) will be changed.

The file fragmentation is shown in the FILE MANAGER via directory format 8. If pointers are greater than 1 then the file is unnecessarily fragmented, and potentially degrading the system performance when accessed.

DCL equiv: COPY/CONTIGUOUS/REPLACE [...]*.*;* [...]*.*;*

4.7 DELETE

Enter D or d

Delete allows the user to delete a directory structure[5]. The directories that will be (potentially) deleted are displayed with a different rendition. The user is twice prompted to confirm that the directories selected and their contents are to be deleted.

This command may not be entered from the top (root) directory.

DCL equiv: DELETE/LOG [...]*.*;* repeatedly until all files and subdirectories are removed.

[5]SWING will only delete files that the user could otherwise delete via the DCL commands SET PROTECTION and DELETE.

4.8 DIRECTORY STATISTICS

Enter !

SWING can display statistics relating to the contents of files in a series of directories. The statistical information available is

1. Count of the blocks allocated to files in a directory (option A).
2. Count of the blocks used by files in a directory (option U).
3. Count of the number of files in a directory (option C).
4. Maximum file-size of the files in a directory (option M).
5. Fragmentation index for a directory (option I). This is the ratio of fragments to files. A ratio of 1.0 is perfect - only one fragment per file.

A grand statistical total can be shown by using option G. This information is shown at the bottom of the screen.

The statistics can be updated via the S option. This is necessary after new files have been added to directories, for example.

The statistical display can be printed via the L option. All statistics are grouped together with the directory name. This is an extremely useful option if you want to manage directories. The resulting file is written to SWING$SAVE if this is defined. If not, then it is written to SYS$LOGIN. Screen snapshot filenames are of the form: SWING_LISTING_FILE_xxxxxx.LIS, where xxxxxx is a selection of unique letters and numbers chosen by SWING to make the snapshot file unique. The user can select between a Narrow (80 columns) or Wide (132 columns) report.

DCL equiv: DIRECTORY/SIZE=ALL [...]*.*;* and a number of other qualifiers

4.9 EDIT NEW FILE

Enter ^E (Ctrl/E)

This allows the user to edit a new file.

The user may define the default editor as per the EDIT option.

DCL equiv: EDIT

4.10 HELP

Enter H, h (or [Help] on LK201 keyboards)

Help allows the user access to this information. The full VAX help features are available.

4.11 IMPORT

Enter <

Import is like copy, except that the user is able to specify a full DECnet file specification for the file to be copied into the current directory, e.g.

NODE"user password"::filespec

The percentage file transfer is displayed while the transfer is in progress to bolster the confidence of the user.

DCL equiv: COPY/LOG full-filespec *

4.12 INSERT DIRECTORY STRUCTURE

Enter I, i or [Insert Here] (LK201 keyboard)

The user can add another structure to the display. The user is prompted for the device and directory specification of the structure to be added. There is no restriction to the number of structures that may be displayed at the same time.

Each structure may only be displayed once.

4.13 LIST DIRECTORY STRUCTURE

Enter ^G (Ctrl/G)

This creates a file which graphically displays the directory structure as you see it on the DIRECTORY MANAGER screen. The resulting file is written to SWING$SAVE if this is defined. If not, then it is written to SYS$LOGIN. Screen snapshot filenames are of the form:
SWING_LISTING_FILE_xxxxxx.LIS, where xxxxxx is a selection of unique letters and numbers chosen by SWING to make the snapshot file unique.

The user can select between a Narrow (80 columns) or Wide (132 columns) report.

Since the special characters used to draw lines cannot always be displayed in a file, the device-independent characters (+,-,|) are used to draw lines.

The files may subsequently be printed via the list files option in the file manager.

DCL equiv: none really (perhaps a DIRECTORY/LIST [...])

4.14 LOCATE FILE

Enter L

This allows the user to find a file based on a partial file specification. The current structure is searched from the current directory downwards. When a match has been found the user is prompted for further action - for example it is possible to enter the file manager, find the next file or quit from this option.

The option is designed to make finding of files as painless as possible.

DCL equiv: DIRECTORY [...]filename

4.15 MENU

Enter ?

A quick one page menu is displayed. The user may make a selection from this menu if required or press [Return] if no option is desired.

4.16 MOVE

Enter M or m

Move allows the user to move part of a directory structure to a new parent directory. Move initiates the move operation by asking the user to move to the a new parent directory. When [Return] is pressed the move takes place. Both the new parent and the directory being moved can have other sub-directories attached to them as well. While moving to the new parent directory the operation can be cancelled by entering any key other than those used for moving around.

You cannot move a directory to another physical disk.

DCL equiv: RENAME directory.dir [new-directory-path]

4.17 PURGE

Enter U or u

Purge allows the user to purge the current directory and all sub-directories.

DCL equiv: PURGE/LOG [...]*.*;*

4.18 QUIT

Enter Q, q, E, e, ^Z, ^C or ^Y (Ctrl/Z, Ctrl/C or Ctrl/Y)

Quit allows the user to exit from SWING and return to DCL.

Your system manager may have also enabled [Return] to quit SWING. Hit '?' to see if it is allowed. See the item 2 of the release notes for v3.5.1 for more info.

The save file is updated if changes have been made to the directory structure.

4.19 REMOVE DIRECTORY STRUCTURE

Enter K, k or [Remove] (LK201 keyboards)

This option allows the user to remove the current structure[6] from the display.

4.20 RENAME

Enter R or r

Rename allows the user to change the name of a directory.

DCL equiv: RENAME directory.dir new-directory.dir

4.21 REPAINT REFRESH THE SCREEN

Enter ^W or ^R (Ctrl/W or Ctrl/R)

Refreshes the screen.

[6] There must be at least two structures on display, otherwise an error message will be displayed - if there's only one structure then it can't be removed.

4.22 RETURN TO MARK

Enter \ ,],} or)

The user can return to a marked directory with \,], } or).

e.g.

\ returns to the directory marked by /,

] returns to the directory marked by [,

) returns to the directory marked by (, and

} returns to the directory marked by {.

4.23 RE - SEARCH - REBUILD DIRECTORY

Enter S

SEARCH re-searches the directory structure, builds a new save file and updates the display accordingly. It is necessary to use this feature if the directory structure has been changed other than by SWING. (e.g. via the BACKUP utility, or DCL commands which create, delete or rename directories)

If there are more than one structure on display then the user is prompted to re-search either all structures or just the current structure.

It is recommended that you use swing for creating, deleting, renaming and moving directories. If this is not possible (eg. when using the BACKUP utility) then hit 'S' immediately after starting SWING, to bring SWING's understanding of your structure up-to-date.

4.24 SET MARK

Enter /, [, { or (.

The user can mark a directory with /, [, { or (. Each of these four keys marks an individual directory, so up to four directories may be marked at any one time.

It is possible to return to the respective marked directory with \,], } or).

4.25 SHOW DISK QUOTA

Enter &

This will show the current device usage - device size, space used, and free space in megabytes. Additionally the user's quota on that device is displayed.

DCL equiv: SHOW QUOTA

4.26 SNAPSHOT THE SCREEN

Enter *

Throughout SWING a snapshot of the screen may be taken. The resulting file is written to SWING$SAVE if this is defined. If not, then it is written to SYS$LOGIN. Screen snapshot filenames are of the form: SNAPSHOT_xxxxxx.LIS, where xxxxxx is a selection of unique letters and numbers chosen by SWING, to make the snapshot file unique.

Since the special characters used to draw lines cannot always be displayed in a file, the device-independent characters (+,-,|) are used to draw lines.

4.27 USER DEFINABLE OPTIONS

Enter ^D (Ctrl/D)

This will display the USER-OPTIONS window.

See Section 3.1 for a full description.

4.28 WHERE - SHOW CURRENT DEFAULT

Enter W or w

WHERE switches on or off the dynamic display of the current default device and directory on top of the display.

If it is switched on, the full directory name is displayed on the left-hand side of the 2nd row, and changes each time you move to a different directory.

5 FILE MANAGER

Enter F or f, (^F (Ctrl/F) to see ONLY the directory files via the FILE_MANAGER).

Your system manager may have also enabled [Return] to move from Directory to File manager. Hit '?' to see if it is allowed. See the Release Notes for v3.5.1 for more info.

FILES allows the user to manipulate the files in the selected directory. Only non-directory files are shown.

The user selects / deselects files by pressing the [Space Bar]. The status of the file next to the cursor will be toggled between selected and deselected.

The user can SELECT ALL the files via 'A' (all), and DESELECT ALL files via 'Z' (zap).

Also the user can SELECT SPECIFIC files based on a (partial) file specification via '+', and DESELECT in a similar way via '-', using wildcards.

At least one file must be selected for the Copy, Delete, Move, Rename and List options.

If the user entered ^F a subset of the FILE MANAGER functionality is invoked. Only the SUB-DIRECTORIES are displayed[7] . This option is included to allow the user to obtain directory information for the sub-directories.

SWING allows the use of the = key (EQUALS)[8] to specify a search criteria for files in the file manager. This key may be used in both the directory manager and the file manager. When = is pressed SWING prompts for the search specification the response to which is a file specification (name.type) including wildcards as required. This specification becomes the basis of the search by the file manager when building up lists of files. This is similar to the DCL command DIR *.C[9] (for example).

Conversely, files can be excluded from the display by hitting the # key (HASH). A logical SWING_EXCLUDE_FILES can also be defined in your LOGIN.COM to permanently exclude files.

The = and # keys are mutually exclusive, so one cancels the actions of the other.

e.g. of responses are *.c, *.exe, test.*, *junk*.*, etc..

5.1 BROADCAST MESSAGES

Enter O or o (Old Broadcast Messages)

BROADCAST MESSAGES are trapped by SWING and displayed in a separate window. This window can be recalled at any time if required. Broadcast messages are issued when new mail is received (for example). This

[7] SWING reads the list of files in a directory by actually opening the directory file. This approach has been taken to improve the performance in situations where there may be many thousands of files in a directory.

[8] These operations (= and #) may also be performed in the directory manager as an alternative to entering F or f to invoke the file manager.

[9] Any version number specified is ignored.

window is automatically displayed when there are outstanding messages and the user is in the directory manager or file manager and is also currently being prompted for input.

5.2 CHANGE FILE OWNERSHIP

Enter ~

This option allows the user to change the ownership of the selected files or directories as desired. The user is able specify the new file owner.

DCL equiv: SET FILE/OWNER=new-owner filespec(s)

5.3 CHANGE FILE PROTECTION

Enter @

This option allows the user to change the protection on the selected files and / or directories as desired. The user is able specify the new file protection.

DCL equiv: SET PROT=(protection-mask) filespec(s)

5.4 COPY

Enter C or c

Copy allows the selected files to be copied to a new directory, which may be the current directory, in which case duplicate copies of these files are made. This option ensures that the new file always has the higher version number in the situation where a file with the same name and version number already exists.

Additionally, files are copied in reverse order to ensure that lower versions of the same file are copied before higher versions, and hence these higher versions still have the higher version number.

If desired the user can enter the EXPORT option by typing > instead of [Return] when selecting the destination directory. Copy is thus being used as a way of specifying the destination directory for EXPORT prior to actually entering export. This can be very useful when copying files into a directory for which the user must specify a user name and password.

DCL equiv: COPY/LOG filespec(s) [new-directory]

5.5 DCL

Enter $

DCL spawns a sub-process in the user's current directory (as shown by the main SWING display). All symbols are inherited from the parent process, however the DCL tables will be taken from sys$system, hence any additions made to the DCL tables will not be present in this sub-process.

LOGOUT when finished.

5.6 DEFRAGMENT FILES

Enter %

Defragmentation allows the user to defragment the selected files. The user is twice prompted to confirm that the files selected and their contents are to be defragmented.

The contents of the the files that are processed will be made as contiguous as possible. No header information (other than the pointers in the header) will be changed.

The file fragmentation is shown in the FILE MANAGER via directory format 8. If pointers is greater than 1 then the file is unnecessarily fragmented, and potentially degrading the system performance when accessed.

DCL equiv: COPY/CONTIGUOUS/REPLACE filespec(s) filespec(s)

5.7 DELETE

Enter D or d

Delete allows the user to delete the selected files[10] . The user is prompted twice to confirm the intent to delete.

DCL equiv: DELETE/LOG filespec(s)

5.8 DIRECTORY DISPLAY FORMAT

There are ten (yes, ten!) different formats of directory information display within the file manager.

To select the desired format just press any key 0 through key 9. The selected format is shown on the bottom right-hand side of the display.

You can permanently set the preferred display format in the first line of the USER DEFINED OPTIONS screen (Ctrl/D).

Also, the left-arrow and right-arrow keys allow the user to cycle through the displays. (Just keep pressing left-arrow or right-arrow).

The display formats should be self-explanatory.

DCL equiv: DIRECTORY/all-sorts-of-qualifiers [current-directory]

5.9 EDIT A FILE

Enter E or e

Edit allows the user to edit the current file (indicated by the cursors).

The user may define the default editor via the user defined options (Ctrl/D). If the user selects EDT or TPU the activation of the editor will be much faster

[10]SWING will only delete files that the user could otherwise delete via the DCL commands SET FILE /PROTECTION and DELETE.

as SWING uses the EDT and TPU shareable libraries.

5.9.1 EDT

This is DEC's EDT, invoked via the EDT$EDIT interface. SWING will use SYS$LOGIN:EDTINI.EDT as a startup file if accessible[11]

- for further information see "VAX/VMS Utility Routines Reference Manual, section EDT".

Set the default editor to EDT for the most efficient startup of EDT.

5.9.2 OTHER

This is any other editor of the user's choice. For example, if the user has defined a symbol 'MYED' to invoke their personal editor, then it is necessary only to enter 'MYED' as the required editor.

This will be somewhat slower than using EDT or TPU, as SWING will set up a sub-process in which to do the editing.

5.9.3 TPU

This is DEC's TPU, invoked via the TPU$TPU interface - for further information see "VAX/VMS Utility Routines Reference Manual, section TPU, subsection TPU$TPU".

The EVE editor will be used by default, unless you (or your system manager) have defined a personal (or site-specific) TPU$SECTION logical name. This then tells SWING to use a "different flavour" of TPU.

If you want to use a tailored version of TPU, then add the following to your LOGIN.COM: $ define/nolog TPU$SECTION my-tpu-initialisation-file

[11] There is a problem with this approach - If the user is in a directory to which he doesn't have write access, the EDT editor will not start up. A solution is to define a key as "EDIT/EDT/READONLY". This problem only affects EDT.

5.10 EDIT NEW FILE

Enter ^E (Ctrl/E)

This allows the user to edit a new file.

The user may define the default editor as per the EDIT option.

DCL equiv: EDIT

5.11 EXECUTE A FILE

Enter X or x

Execute allows the user to execute the current file either as a command file (.COM) or as a executable (.EXE) file.

If the file has a filetype of .COM, then it will be automatically executed as a DCL command procedure. DCL equiv: @filename.COM

If the file has a filetype of .EXE, then it will be automatically executed as an executable image. DCL equiv: RUN filename.EXE

If the file is neither of the above, the the user is asked if the file is a DCL command file. If the user answers 'Y', then it is executed as such. If the response is 'N', then the file is not executed at all and the user is returned to the File Manager screen.

5.12 EXPORT

Enter >

Export is like copy, except that the user is able to specify a full DECnet path for the selected files, e.g.

NODE"user password"::

The percentage file transfer is displayed while the transfer is in progress to bolster the confidence of the user.

DCL equiv: COPY/LOG filename(s) remote-filespec(s)

5.13 HELP

Enter H, h (or [Help] on LK201 keyboards)

Help allows the user access to this information. The full VAX help features are available.

5.14 IMPORT

Enter <

Import is like copy, except that the user is able to specify a full DECnet file specification for the file to be copied into the current directory, e.g.

NODE"user password"::filespec

The percentage file transfer is displayed while the transfer is in progress to bolster the confidence of the user.

DCL equiv: COPY/LOG full-filespec *

5.15 LIST or PRINT

Enter L or l

List allows the user to print the selected files to the printer queue defined by the user defined options (Ctrl/D)

The user may, if desired, change the printer queue for the duration of the current session.

5.16 MENU

Enter ?

A quick one page menu is displayed. The user may make a selection from this menu if required or press [Return] if no option is desired.

5.17 MOVE

Enter M or m

Move allows the user to move the selected files to a new directory[12] on the same device. The files are moved in such a way that the new file always has the higher version number in the situation where a file with the same name and version number already exists.

DCL equiv: RENAME filespec(s) [new-directory]

5.18 MOVING AROUND

The user may move around the displayed directory structure using the four 'arrow-keys', or:

^J to move up,

^K to move down,

^H to move left,

^L to move right,

N, n or [Next Screen] to advance by one screen,

P, p or [Prev Screen] to move back by one screen,

[12]Files can only be moved on the same physical device.

T, t to move to Top of the current structure, or if already at the top then to the top of the previous structure (if there is one),

B, b to move to Bottom of the current structure, or if already at the bottom then to the bottom of the next structure (if there is one) and

[Select] and [Find] (LK201 keyboard) can be used to move around an internally held stack of 'visited' directories. A directory becomes 'visited' when the user invokes the FILE MANAGER in this directory. SELECT moves forward, FIND backward.

5.19 PRINT

Enter L or l

Print (or List) allows the user to print the selected files to the printer queue defined by user defined options (Ctrl/D).

The user may, if desired, change the printer queue for the duration of the current session.

This command is the same as LIST.

DCL equiv: PRINT filename(s)

5.20 PURGE

Enter U or u

Purge allows the user to purge the current directory[13].

DCL equiv: PURGE/LOG *.*

[13] Sub-directories are not purged

5.21 QUIT AND RETURN TO DIRECTORY

Enter Q, q or ^Z (Ctrl/Z)

Quit will leave the file manager option and return to the directory manager screen.

Your system manager may have also enabled [Return] to move from File back to Directory manager. Hit '?' to see if it is allowed. See item 2 of the Release Notes for v3.5.4 for more info.

5.22 RENAME

Enter R or r

Rename allows the user to rename the selected files one at a time.

DCL equiv: RENAME filename(s) new-filename(s)

5.23 REPAINT REFRESH THE SCREEN

Enter ^W or ^R (Ctrl/W or Ctrl/R)

Refreshes the screen.

5.24 RE - SEARCH - REBUILD FILE

Enter F, f or =

The files in the current directory are re-searched. The display is updated accordingly.

If '=' is entered, then a search specification can be entered, using Wildcards.

e.g. *.C .

5.25 SELECT FILES

The user selects / deselects files by pressing the [Space Bar]. The status of the file next to the cursor will be toggled between selected and deselected.

The user can SELECT ALL the files via 'A' (all), and DESELECT ALL files via 'Z' (zap).

Also the user can SELECT SPECIFIC files based on a (partial) file specification via '+', and DESELECT in a similar way via '-', using wildcards.

At least one file must be selected for the Copy, Delete, Move, Rename and List options.

5.26 SHOW DISK QUOTA

Enter &

This will show the current device usage - device size, space used, and free space in megabytes. Additionally the user's quota on that device is displayed.

DCL equiv: SHOW QUOTA

5.27 SNAPSHOT THE SCREEN

Enter *

Throughout SWING a snapshot of the screen may be taken. The resulting file is written to SWING$SAVE if this is defined. If not, then it is written to SYS$LOGIN. Screen snapshot filenames are of the form: SNAPSHOT_xxxxxx.LIS, where xxxxxx is a selection of unique letters and numbers chosen by SWING, to make the snapshot file unique.

Since the special characters used to draw lines cannot always be displayed in a file, the device-independent characters (+,-,|) are used to draw lines.

5.28 SUBMIT FILES TO BATCH

Enter S or s

Submit allows the user to submit the selected files to the batch queue defined by the "User Defined Options" (Ctrl/D)

The user may, if desired, change the batch queue for the duration of the current session.

5.29 TYPE

Enter Y or y

Type allows the user to display the current file on the terminal, and is the Public-domain "Most" Utility.

At the end of each screen, it displays (in reverse video) the filename, percentage of the file displayed so far, line number at the bottom of the screen and total number of lines in the file.

To get help, hit [Help], 'H' or 'h'.

To exit, hit 'Q', 'q' or Ctrl/Z.

A summary of the options in TYPE are:

[Space], D, d, ^D	**	Move down one screen
[Return], [Arrow Down]	**	Move down one line
U, u, ^U, [Delete]	**	Move up one screen
[Up Arrow]	**	Move up one line
R, r ^R		Repaint (Refresh) screen
T, t		Top of file
W, w, ^W		Toggle between narrow/wide screen display
B, b		Bottom of file
[Right Arrow]		Scroll Screen Left (view lines on right)
[Left Arrow]		Scroll Screen Right (view lines on left)
F, f,	**	Find Forward
?	**	Find Backward
N, n		Find next in current search direction
J, j, G, g		Goto line number in the file
%		Goto percentage number in the file
Q, q		Quit MOST and return to File Manager
:N, :n		Quit this file and view next

Those options starting with '**' may be repeated 'n' times by entering a number, then the command key. eg. '5 [Space]' moves forward 5 screens.

5.30 USER DEFINABLE OPTIONS

Enter ^D (Ctrl/D)

This will display the USER-OPTIONS window.

See Section 3.1 for a full description.

6 RELEASE NOTES

6.1 Version 3.5.4

Two new features have been added to this minor release of Swing:

1. Added file exclude[14] "#" option (opposite to the include "=" function) and SWING_EXCLUDE_FILES logical name to work like DIR/EXCLUDE.

2. Added a check for supported terminal type

Bug fixes:

1. Bug with negative percentages on large file copies occassionally appearing fixed.

2. File creation dates on copy are now preserved (just like DCL copy does)

3. Fixed memory leak; variables were being trashed when the starting directory was more than 40 characters in length; caused many bad side-effects

4. Fixed bug when Swing is started up on an empty directory

5. Change to volume set patch to handle very large file ids

6.2 Version 3.5.3

Two new features have been added to this minor release of Swing:

1. The 'TYPE a file' command in File Manager now has a command 'W', 'w' or Ctrl/W to toggle between wide (132 columns) and narrow (80 columns) while viewing the file on the screen. (This is a new feature of the MOST utility).

2. For those who wish to use [Return] to toggle between the File and Directory manager screens, the SWING.H file has a 'macro directive identifier' called CR_RETURNS_FROM_FILE_TO_DIR_MGR. If you prefer this option and currently don't have it, see your system manager to define this in SWING.H and then rebuild swing. From Chris Butler (c.butler@mof.govt.nz).

[14] The include "=" option is exclusive; also file purge would have to have been extensively re-worked, so purge is not supported if files are excluded

6.3 Version 3.5.2

This release fixes all known bugs and provides the following New features:

1. Replaces MORE with MOST in the TYPE option of File Manager.
2. A /Version or -v command line option (eg. $ SWING /VERSION) to display the current version of Swing, and then return to DCL. It returns the following string: C SWING v3.5.2 (S.J.Brown, M.Akerberg, H.Flowers and others)
3. A /Help or -v command line option (eg. $ SWING /HELP) to display help for the command line. It returns the following string: Usage: swing [-f][-v][-h] [directory][,directory...] f=file manager first v=version only h=this help

6.4 Version 3.5.1

It contains fixes to some bugs reported after V3.5 was released, as well as some nice new features. A description follows:

New features:

1. A /filemanager or -f command line option (eg. $ SWING /FILE). This option specified on the command line will act just as if "F" were entered as soon as you get the directory manager screen.
2. For those who wish to have the option of hitting [Return] to exit SWING, instead of [Return] to go to File Manager the SWING.H file has a 'macro directive identifier' called MATS_HACK. If you prefer this option and currently don't have it, see your system manager to define this in SWING.H and then rebuild swing. If MATS_HACK is defined some commands (such as copy and move) are terminated with [Delete] instead of [Return]. From Mats Akerberg (mats@efd.lth.se).
3. When you don't have read access to your top directory, SWING will start with the directory it can read. Seems to be common practice as most sites use concealed logicals to hide the real top level directory. From Bernd Onasch (ONASCH@ira.uka.de).

Bug fixes:

1. Old problem with change protection only changing world protection has been fixed.
2. Terminal characteristics (like numeric keypad) are now restored on exiting from CSWING.
3. Problem with long lines in configuration files (also from Mats).

6.5 Version 3.5

The following new feature has been added between version 3.4 and 3.5 by Harry Flowers (flowers@msuvx1.memst.edu). This feature has always been in the code, but never worked.

When exiting SWING, all Broadcast messages received during the SWING session and the current default directory are displayed.

6.6 Version 3.4

The following bugs were fixed between version 3.2 and 3.4 by Harry Flowers (flowers@msuvx1.memst.edu).

Did not handle disks in bound volume sets. Couldn't exit from "@ - change file protection". Disk quota ("&") option did not stay on screen until key pressed. Quit option did not work on copy or move files or directory options. More ("Y") option failed after invoking it a fixed number of times. More ("Y") option W did not reset internally to normal from wide. More ("Y") option searching did not work in case-insensitive mode unless a lower-case string was used for the search pattern. More ("Y") option spacing problem with form feeds; now treated just like a non-printable character (replaces it with a "^" character). More ("Y") option caused the file manager to display the file in lower case after it had been viewed.

6.7 Version 3.2.1

The following changes have been made since version 3.2 by Mats Akerberg (mats@efd.lth.se)

DIRECTORY MANAGER:

The 'E' key has been added to allow you to exit out of swing. So you can use the following keys to exit: E, e, Q, q, Ctrl/C, Ctrl/Y or Ctrl/Z

FILE MANAGER:

1. The [Return] key has been added to allow you to exit from file manager back to directory manager. So you can use the following keys to return to directory manager: Q, q, [Return] or Ctrl/Z
2. You can now DISPLAY files on the the screen using the 'Y' command in file management. It makes use of the 'More' Utility and has some very powerful commands in it, such as edit the file you are viewing, search for strings, skip pages and switch From 80 to 132 columns (and back again), which allows you to look at wide reports. Hit 'H' when you are in the type utility for help.