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Midnight Commander Guide

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What Is Midnight Commander?

- At its core, it is simply a file management tool that lets you
 easily copy/move/delete files and perform other operations on
 them.
- However, it is loaded with features.
- While it is text based, it is a graphical tool.
- It runs on Linux and comes with most distributions.
- Once you become good at it, you'll be able to do file manipulations faster than anyone using a non-text graphical tool.

How Do I Run It?

Type mc on the command prompt

Why Did I Write This Guide?

- I routinely see people struggling to perform certain tasks on the command line that would be easy in Midnight Commander.
- I see shell wizards trying to construct a sophisticated chain of commands to do a task that could be easily done with Midnight Commander.
- I think people will greatly benefit from using it.

Beginner Friendly

• People who are not comfortable with the command line can use this as a crutch to do fairly simple operations in Linux.

Expert Friendly

- Midnight Commander does have a lot of powerful capabilities.
- It is not an alternative to the shell, but a supplement.
- You don't lose the command prompt when using Midnight Commander!
 - Far too many "experts" scoff at using such tools because "nothing is more powerful than the shell".
 - You'll have access to virtually all your shell functions, etc in Midnight Commander!
- Use the right tool for the right job—if you can do it easily in Midnight Commander, don't waste keystrokes writing a complicated command in the shell!



Layout



- Two panels: Left and right
- By default, a directory is shown in each panel.
- Ctrl-u will swap the panels.
- Alt-i will make the other panel show the same directory as the active panel.

Columns

- Leftmost column is the name of the file or directory.
- The two dots denote the parent directory.
- qcomputer is a directory.
- If the filename does not fit in the column, there will be a ~ in the middle of the displayed name.
- Click on a column header to sort by that column. Click again to sort in reverse order.

Colors of Files

```
      /tmp2
      4096 Nov 28 2007

      /windows
      4096 Aug 16 2009

      me2.eps
      67051 Mar 25 2007

      proof.pdf
      146946 Apr 17 2007

      scat.eps
      60755 Mar 25 2007
```

- Different colors denote different types of files.
 - White →directory
 - Red \rightarrow document
 - ullet Cyan oimage

Commands

• On the bottom of the screen, you'll see:



- Each number denotes a function key.
 - So F1 is help, F3 is View, etc.
- You can also click on them.
- They'll be carved into your brain after a little use.
- You can opt not to have this shown all the time.

Layout/Navigation
Selecting Files
Manipulating Files
Command Prompt
Images/Documents/Movies/Archives/etc
Help!

Space

• On the bottom right of each panel, you'll see

• Free space left on your partition

Shortcuts

- Many more commands are accessible using other keybindings.
- Relevant ones will be mentioned in each section.
- Midnight Commander docs convention:
 - C-x means Ctrl-x
 - M-x means Alt-x
- I'll continue to write them as Ctrl and Alt.

Navigation



- At any given time, the cursor is either in the left or the right panel.
- Use the cursor keys to navigate.
- TAB jumps from one panel to the other.
- To enter a directory, navigate to its name and press Enter.

Jump to File/Directory

- You can jump to a file/directory by pressing Alt-s and typing the file name.
- It does a find-as-you-type search, so it will put the cursor on the desired item very quickly.

• Press Alt-s to go to the next match.



Selecting Files Individually

- Insert to select/deselect file under the cursor
 - It toggles the selection state.
 - Same as 0 on the numeric keypad—easier to use.
- * inverts the selection of all files in the panel.
- Right clicking a file will select it.

Layout/Navigation
Selecting Files
Manipulating Files
Command Prompt
Images/Documents/Movies/Archives/etc
Help!

Selected Files

```
.tcommanderpres/literature
      Name
                   Size
                           Modify time
                  UP--DIR
                           Sep
                                   23:20
/qcomputer
                      4096
                                    2008
                           Apr
                                 3
dispersion.pdf
                    253007
                                    2007
                           Jun
nishiquchi.pdf
                    140388
                           Apr
                               26
                                    2007
SiNWAcoustic.pdf
                    186057
                           Nov
                                    2007
stroscio.pdf
                           Apr
thesis2.pdf
       579,452 bytes in 3 files
stroscio.pdf
                        10G/523G (1%)
```

- 3 files have been selected.
- A summary is displayed at the bottom.

Layout/ Navigation
Selecting Files
Manipulating Files
Command Prompt
Images/Documents/Movies/Archives/etc
Help!

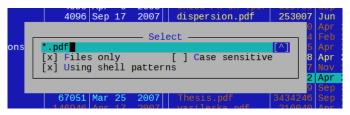
Basic Actions on Selected Files



- Press F5/F6 to copy/move the selected files.
- F8 to delete them.

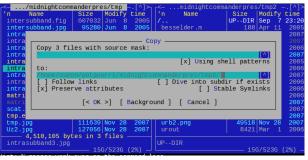
Selecting Files by Pattern

• + lets you specify a pattern of files to select:



- If *shell patterns* is unchecked, regular expression matching will be used.
- – is the same as +, but is for deselecting.
- By default pattern based selection does not select directories.

Copying

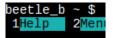


- F5 on selected files to copy
 - F5 on a single file/directory without selecting it works as well.
- By default, the directory in the opposing panel is already filled in as the destination.
 - Idiom: Navigate to the target directory in the opposite panel before pressing F5.

Moving/Renaming

- F6 to move/rename
- Options are identical to that for copying.

It's Still There!



- The command prompt is always present at the bottom of the screen!
- Virtually all your shell wizardry will continue to work.
- Need to press Alt-TAB for TAB autocompletion.
- Ctrl-o will hide the panels.
 - Handy if the command you typed outputs something to the screen and is "behind" the panels.
 - When the panels are hidden, TAB provides autocompletion.



Prompt Related Keybindings

- Alt-Enter on any file makes it appear on the prompt.
- Ctrl-Shift-Enter does the same thing, but with the full path included.
- Ctrl-x t will type out all your selected files to the prompt.
 - Ctrl-x Ctrl-t does the same for the opposing panel.
- Ctrl-x p or Ctrl-a will type out the current path to the prompt.
 - Ctrl-x Ctrl-p will type out the opposing panel's path to the prompt.

Super Enter

- Enter on a filename can be made to do magic.
- On an image it can/will launch an image viewing program.
- On a video it can/will start playing the video.
- On an audio file it can/will play the file.
- On a document (PDF, DOC, etc) it can/will launch the appropriate viewer.
- On an executable it will run the executable.
- To customize the action it performs on a file, go to Edit Extension File in the Command menu.



Archives

- Enter on an archive file (e.g. zip, tar, etc.) will navigate into the archive and display it as if it were a regular directory.
- You can view files inside the archive.
- You can select files in the archive and copy them to a real directory.
- You can even copy files into an archive.
 - Well, except for tar—that's a limitation of the tar format.
- I handle most archive files via Midnight Commander.

Quip

Sane people don't remember all the command line options for tar, zip, etc.



Accessing help

F1 will always help you:

```
Help

Commander 4.8.1

This is the main help screen for GNU Midnight Commander.

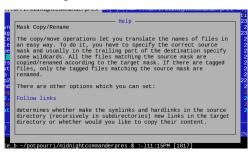
To learn more on how to use the interactive help facility just press ancer. You may want to go directly to the help contents.

GNU Midnight Commander is written by its authors.

GNU Midnight Commander ownes with ABSOLUTELY NO MARRANTY. This is free software, and you are welcome to redistribute it under terms of GNU General Public License.
```

Context Sensitive help

- F1 will give you context sensitive help.
- Pressing it in a dialog window will explain all the options in the dialog:



Basic Viewing

• F3 on a file to view it.

```
comprapp.m
This code will plot the absolute values of the components of u (displacement
%of the phonon modes) vs qz for fixed R. To calculate which qz''s to take,
%I used Ez and assumed phonon absorption. Used energy conservation rules to
Kaet az then.
est=0: %Debugaina
orig = [2.4048256 3.8317060 5.1356223 5.520781 6.3801619 7.01559 7.58834 8.41724
3.65373 8.77148 9.76102 9.93611 10.17347 11.06471 11.08637 11.61984 11.7915344 12
22509 12.33860 13.01520 13.32369 13.3543 13.58929 14.37254 14.9309177086 16.47063
18.0710639679 19.61586 21.2116366299 22.76008 24.3524715308 25.90367 27.49348 : 0
= [jorig jtemp];
load -ascii indeck
disp('Enter the mode you wish to see (1-24):');
node= indeck(1):
6mode=input (' Mode = ');
1Help 2UnWrap 3Ouit 4Hex 5Goto
```

Geared towards text formats



Searching in View Mode

• When viewing a file, F7 lets you search it:

i assumed phonon absorpti	on. Used energy conservation ru	ites
	37	83 .7 86 7.
itemn(2 ·)·		
	Enter search string: skip (*) Normal () Regular expression () Hexadecimal () Wildcard search	Enter search string: (*) Normal () Regular expression () Hexadecimal () Wildcard search [Cancel]

- Click on the caret to see your search history.
- After the first match, Ctrl-s finds the next match.

Some Keybindings

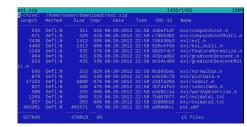
- F2 unwraps the text.
- F5 lets you jump to a position in the file (line number, percentage, etc).
- Ctrl-f: View the next file
- Ctrl-b: View the previous file

More on Viewing

- When viewing a HTML, PDF, DOC or similar document, Midnight Commander will try to show you only the text of the document.
 - So an HTML file will be shown formatted without all the tags.
- If you want to view the "unprocessed" version of the file, press F8 or click on Raw.
- You can view the contents of a gzipped text file.
- You can specify an external viewer, but why would you?
 - From the main menu, Options, and then Configuration lets you disable the internal viewer.

Non-Text Files

- Recall: You can do magic by pressing Enter on files.
- There is also some magic related to viewing files.
- Pressing F3 on a zip file gives the screen on the right.
- To customize the magic, from the main menu select Command and Edit Extension File



Editing Files

• F4 to edit a file

```
Answer: Alexandria
3) Barchan refers to what landscape feature?
a) Cliffs b) Sand Dune
(More detailed choices, I did not get them down)
Answer: Sand Dune
Digression: From http://en.wikipedia.org/wiki/Barchan:
A barchan dune is an arc-shaped sand ridge, comprised of well-sorted
sand. This type of dune possesses two "horns" that face downwind, with.
the slip face (the downwind slope) at the angle of repose, or.
approximately 32 degrees. The upwind side is packed by the wind, and
stands at about 15 degrees. Simple barchan dunes may stretch from meters
to a hundred meters or so between the tips of the horns.
Simple barchan dunes may appear as larger, compound barchan or .
megabarchan dunes, which may migrate with the wind. Barchans and
megabarchans may coalesce into ridges that extend for hundreds of
1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn10Ouit
```

Selecting Text

- F3 to select some text, F3 again to stop selecting.
 - F5 to copy selected text elsewhere
 - F8 to delete selected text

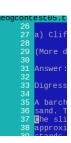
A barchan dune is an arc-shaped sand ridge, comprised of well-sorted sand. This type of dune possesses two "horns" that face downwind, with the slip face (the downwind slope) at the angle of repose, or approximately 32 degrees. The upwind side is packed by the wind, and stands at about 15 degrees. Simple barchan dunes may stretch from meter to a hundred meters or so between the tips of the horns.

- Ctrl-u to undo
- Alt-r to redo
- Clipboard:
 - Ctrl-Ins to copy
 - Shift-Del to cut
 - Shift-Ins to paste



Navigation

- Alt-b to jump to matching bracket, brace or parenthesis
- Alt-k to bookmark line
- Alt-j and Alt-i to navigate to next/previous bookmark
- Alt-o to clear bookmarks
- Alt-I to jump to line
- Alt-n to display line numbers (see image on right)



Replacing Text

• F4 to replace text

Enter search string:	Replaceing:
(*) Normal () Regular expression () Hexadecimal () Wildcard search	[] Case sensitive n [] Backwards [] In selection [] Whole words [] All charsets
[< 0K >]	[Cancel]
meters or so between the	tips of the horns.

• F7 to search—same dialog as with viewing

Saving

- F2 to save the current file
- F12 to save as a new file:

```
Enter file name:

BEOGCONTESTEDS, LEXT

Change line breaks to:

(*) Do not change
() Unix format (LF)
() Windows/DOS format (CR LF)
() Macintosh format (CR)

[ < OK >] [ Cancel ]

about 15 degrees. Simple barchan dunes may stretch from meters.
```

Syntax Highlighting

• Supports syntax highlighting:

```
/home/mue-oustic.py [----] 0 L:[ 1+ 0 1/77] *(0 /2236b) 0035 0x023

If this size concerns code to calculate relevant aspects of the longitudinal acoust
from numpy import *
from scipy.special import jvp, trapz, j0
from scipy.special import jn as bessel]
from scipy.integrate.quadrature import simps, quadrature
from useful import *
import psyco
psyco.full()
h=1.0546e-34
rho=2330.0
```

Ctrl-s to enable if not already enabled

More Options

- F9 to get a drop down menu
- Lots of goodies in the menus



Some Comments about Editing

- I'm impressed with how many people I've met who regularly use the editor, but have never heard of Midnight Commander.
 - It can be launched by typing *mcedit* on the command line.
- I use it mostly for quick and dirty edits.
- You can make an external editor your default:
 - From the main menu, *Options*, and then *Configuration* lets you disable the internal editor.

Bringing up the menu

Under many contexts, F9 will bring up a menu:



- The Right menu impacts the right panel. Left acts on the left panel.
- Take some time to go through the main menus. There are many features/customizations in there.
- I've shown some examples on the next few slides.

Menus (File)



- You can do more than just move and copy files.
- Quick cd will let you quickly move to another directory without messing up whatever you had typed in the command line.

Quip

Did I mention that you still have the command line in Midnight Commander?

Menus (Command)



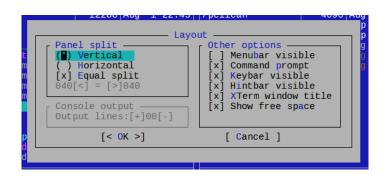
- External panelize will let you panelize the results of an external (e.g. shell) command.
- Directory hotlist is essentially a way to bookmark commonly accessed directories.
- Edit extension file lets you customize the command that is executed when you view a filetype or press Enter on it.
 - For example, you can have it display EXIF headers for an image file when you "view" it, and launch an image viewer when you press Enter on an image file.

Panels File Menu Commands Menu Options Menu User Menu

Configuration

	File operation options [x] Verbose operation [x] Compute totals [x] Classic progressbar [x] Mkdir autoname [] Preallocate space Esc key mode [] Single press Timeout: 1000000 Pause after run () Never (*) On dumb terminals () Always	options Other options [x] Use internal edit [x] Use internal view [] Auto menus [] Drop down menus [x] Shell patterns [M] Complete: show all [x] Rotating dash [x] Cd follows links [] Safe delete [x] Auto save setup	
p	[< 0K >]	[Cancel]	ı

Layout



Panel

Main options [X] Show mini-status [] Use SI size units [] Mix all files [x] Show backup files [x] Show hidden files [] Fast dir reload [x] Mark moves down [x] Reverse files only [] Simple swap [x] Auto save panels setup	Navigation
[< 0K >]	[Cancel]

User Menu

Press F2 to access the user menu:

```
Do something on the tanged files

Edit a bug report and send it to root

Call the info hypertext browser

Compress the current subdirectory (tar.gz)

Append files to opposite files

Delete tanged files if a copy exists in the other di

Copy files to remote host (no error checking)

U Uudcode marked news articles (needs work)

Y Gzip or gunzip tanged files

B Elly Or bunzip 2 tanged files

B Elly Or bunzip 2 tanged files

Conwert gic-bbz), tan.gz-bar.bz2 & tgz.>tar.bz2
```

- You can apply a command to all selected files.
- You can create a compressed archive of the current directory—I use this all the time.
- You can edit a configuration file to customize what options are displayed here—press F1 for details.

Finding Files

• Press Alt-? to search for files:



Quip
Poor man's grep and find

- The content field is optional.
- Numerous options are supported.

Results of File Search

```
----- Find File -----
/home/mueen/tmp/midnightcomma~es/presentations/JP-Feb-2008
    28:main.tex
    127:main.tex
    127 main tex
    220:main.tex
    237:main.tex
    283:main.tex
    295:main.tex
/home/mueen/tmp/midnightcomma~esentations/2009-08-21-intel v
 Finished
 Found: 459
                 [ Again ] [ Suspend ]
  [< @hdir >]
     [ Panelize ]
                      [ View - F3 ]
```

- All the search results are listed.
- Can easily view/edit any file in the results.
- The Panelize command at the bottom is useful.



Example Use Case

- Let's say I want to find all JPG files under a directory and delete them (or move them to a dedicated *images* directory).
- Problem: The JPG files are scattered across many subdirectories.
- Solution: Use the search results (as shown in the previous slide), and select Panelize:
- All the results are shown as if they were in one directory. You can now manipulate them any way you wish (e.g. select all and delete).

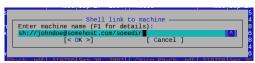


Remote File Systems (FTP)

• Did you notice this in the menu?



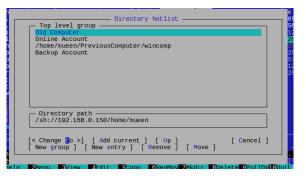
 You can (S)FTP to a remote machine and navigate its directories with Midnight Commander:



- It will show up like any other directory. You can view files, copy back and forth, etc.
- Midnight Commander is my main FTP tool.



Directory Hotlist



- You can bookmark a directory.
- You can even bookmark a remote location—very handy.

The Default Key Bindings Suck!

Problem

The default key bindings suck! I want to change them!

Solution

Despite what the Internet tells you, with a recent enough Midnight Commander, one *can* change the key bindings.

Quip

But you'll need a PhD to figure out how.



I Can't Select Text With My Mouse

Problem

I can't select text with my mouse!

Solution

- Hold down the Shift button while selecting your text.
- Do likewise when pasting with the mouse.

When I Quit I'm In The Wrong Directory!

Problem

When I quit Midnight Commander, I'm in the directory I was in when I launched it. I want to quit to the directory Midnight Commander was last in!

- This is a major pain.
- Most Linux distributions will come with shell scripts to fix this.
- I have the following line in my .zshrc:

.zshrc

source /usr/libexec/mc/mc.sh



Quitting Into the Wrong Directory

/usr/libexec/mc/mc.sh

```
# Don't define aliases in plain Bourne shell
[ -n "${BASH_VERSION}${KSH_VERSION}${ZSH_VERSION}" ] || return 0
alias mc='. /usr/libexec/mc/mc-wrapper.sh'
```

/usr/libexec/mc/mc-wrapper.sh

Temporary Do Something Else

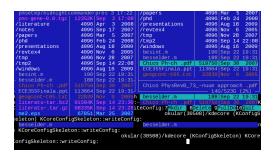
Problem

I'm viewing/editing a file and I suddenly realize I need to copy a file somewhere. It's a pain to quit the viewer to do this task.

Solution

While viewing/editing, press Alt-'.

My Screen is Garbled Up



Problem

My display got messed up!

Solution

Press Ctrl-I to redraw the display.

Update the Panel!

Problem

Some of the files in my directory changed. Midnight Commander doesn't pick up these changes. It's a pain to exit the directory and re-enter it.

Solution

Press Ctrl-r to refresh the panel.

Blue?! Yechh! I Want to Change the Colors!

Problem:

Blue?! Yechh! I want to change the colors!

Solution

- To run in B/W mode, launch it with the -b option.
- Otherwise see https://www.midnightcommander.org/wiki/doc/common/skins for details on how to change the appearance.

I want Midnight Commander in Windows!

Problem

I want Midnight Commander in Windows!

Solution

Try Far Manager (http://www.farmanager.com/)

History

- In 1986 Peter Norton developed Norton Commander for DOS.
- It was very powerful, and alleviated the pain of writing commands in DOS.
- The product more or less died once everyone switched to Windows.
- Many clones have been developed, but Midnight Commander is the most featureful for the Linux environment.