

SCREEN:
A COMPREHENSIVE INTRODUCTION

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Preface

Why a book on a console utility, on **screen**?

There are several reasons:

- **screen** is misunderstood.
- **screen** is underutilized.
- **screen** documentation is extensive, but not well suited for first time learning.

This book is was designed to satisfy these goals:

Create a easy-to-read tutorial. It should be easy to pick up **screen** and to begin using it immediately.

Document (and index) all aspects of screen. All commands should be documented and indexed, to the fullest extent possible.

Create “task-oriented” descriptions. That is, rather than a list of options or commands, organize them into task-oriented topics.

Coverage

Chapter 1 is an introduction to **screen**, and is oriented towards a beginning **screen** user who wants to learn what it takes to use **screen** daily, without having to learn all the nitty gritty. The goal of Chapter 1 is to make the reader productive as quickly (and easily) as possible.

Chapter 1 is designed to stand alone.

Chapter 2 introduces the command line, in preparation for discussing commands in further chapters. It discusses what the command line is good for, as well as the **screenrc** files.

Chapter 3 discusses the various informational commands available in `screen`.

Chapter 4 discusses `screen` windows and window operations. This chapter covers creating new windows, destroying windows, listing current windows, monitoring windows for activity (or lack of), zombie windows, hard status lines, and more.

Chapter 5 discusses serial terminal windows (i.e., windows connected to a serial line or other tty device). An example of using `screen` as a serial concentrator is shown.

Chapter 6 discusses split windows (that is, regions), including resizing regions, creating new regions, and removing old regions.

Chapter 7 talks about logging (such as `script(1)` does) and screen captures.

Chapter 8 explores copying and the copy buffer, including copy commands, customizing keys, and an in-depth discussion on using the registers.

Chapter 9 considers detached operations, including detaching and reattaching screen sessions.

Chapter 10 discusses how `screen` uses the terminal emulation; on the one hand, what terminal emulation `screen` works with, and on the other hand, what terminal emulation `screen` provides to the windows it creates.

Chapter 11 goes over the various execute options, and the many ways that a subprocess can be executed and hooked into filtering `screen` input and output.

Chapter 12 explores the capabilities to customize `screen` in the `screenrc` file.

Chapter 13 goes over (briefly) the commands that are used to support Braille terminals.

Appendix A shows you how to install `screen`, and gives a step by step description of how to do it.

Appendix B goes into some detail about the emulation of the VT100 terminal that `screen` provides to the running in-window processes.

Appendix C gives the default commands (default settings) and their standard commands.

Appendix D lists the complete list of commands available in `screen`.

Appendix E lists all available options for `screen` and gives a quick explanation of each.

Appendix F gives an introduction and discussion on the `screen` manual page (included in Part II).

Topics Not Discussed

In the interest of time and knowledge, two areas of `screen` capability will not be discussed. It is our wish that these topics be included in a future edition of this book.

These topics are:

- Internationalization (specifically, foreign font support)
- Multiuser Support

Internationalization and foreign font support consists of the following commands:

- `c1` (enable or disable `c1` code processing)
- `charset` (change character set slot designation)
- `digraph` (enter digraphs)
- `encoding`¹ (select encoding)
- `gr` (change GR charset processing)
- `utf8` (select character set encoding)

Multiuser support consists of the following commands:

- `acladd` (or `addacl`)
- `aclchg` (or `chacl`)
- `acldel`

¹The `encoding` command appears to be the same as the `kanji` command, though this is not documented in the current manual.

- `aclgrp`
- `aclumask` (or `umask`)
- `displays`
- `multiuser`
- `su`
- `wall`

All of these commands are, however, discussed in the included `man` page for `screen`.

About the Man Page

Part II is comprised solely of the `screen(1)` man page which is provided with the program. Thus, it is on the system wherever `screen` exists.

So why include it here? More fluff? No, the `screen(1)` page was included to round out the coverage, fill in any gaps that were missed, and most importantly, to provide a physical paper version that can be carried with you and referred to when a computer is not available.

Having documentation available only on a computer system is highly overrated; a paper version is the only thing that can be used at the riverside or at the campfire.

A Note on Syntax

Code references, printouts, and input are printed like this:

```
screen -DR
```

Sometimes the output is too big to be printed fully. There is no good solution to this. In this book, either the font size of code is shrunk in order to avoid breaks, or a `<` character is displayed where an “unnatural” break is placed in order to make the display fit the printed page.