

4. Beginning to Use EMACS

*Academic Computing Support
Tennessee Technological University*

Prerequisite

ACS documents 1, 2, and 3. These documents are available in CH215.

Contents

What is EMACS?	2
Log In	2
Opening a File	2
Cursor Movements	3
Exit and Save	4
Directory	4
Deletion	5
Exit and Cancel	6
More Cursor Movements	6
Summary	7

What is EMACS?

EMACS is an editor that allows you to create and modify files on the computer. These files can be computer programs, documents, or data files.

Log In

To use EMACS, you must first log in. When you log in, you are telling your terminal to connect with the main computer system.

Let's follow John Q. User, social security number 409-00-1234, as he logs in.

Note: Your terminal may have an Enter key instead of a Return key.

1. At the **Username:** prompt,
Type: JQU1234
2. Press:
3. At the **Password:** prompt,
Type: yourpassword
4. Press:

You are now logged in to the VAX.

Opening a File

You can enter EMACS by opening a file. Let's open a file called SAMPLE.TXT. The extension txt means that this file is a text file.

1. At the **\$** prompt,
Type: emacs sample.txt
2. Press:

Two lines of type are on the bottom of your screen. The first line will always be there. The second line will disappear as soon as you type something.

```
Buffer: sample.txt File: user:[jq1234]sample.txt; (Text) Top
New file: user:[jq1234]sample.txt;
```

Now that we have opened a file, let's enter some text. Don't worry if you make mistakes; we'll fix them later. Type the following text. Be sure to *always, always* press `RETURN` at the end of each line.

1. *Type:*
Remember to press the return key at the end of each line. In this sample file, you are going to learn how to move the cursor. Also, you will learn how to delete a character.
2. *Press:* `RETURN`
3. *Type:*
The extra return that you pressed allowed you to skip a line. When you finish entering this text, you will save it using a control sequence. That means that you press the control key and some other key at the same time.
4. *Press:* `RETURN`

Cursor Movements

You will need to learn some cursor movements. You can move the cursor using the arrow keys or the control sequences. The following are the four basic cursor movements:

- `[CTRL-P]` or `↑` moves the cursor to the previous line.
- `[CTRL-N]` or `↓` moves the cursor to the next line.
- `[CTRL-F]` or `→` moves the cursor forward one character at a time.
- `[CTRL-B]` or `←` moves the cursor backward one character at a time.

When you use a control sequence, you press the control key and another key at the same time. Let's practice using the control sequences. Follow the steps below:

1. *Press:* `[CTRL-P]` or `↑`
Press the control key and the P key at the same time. Repeat this step until the cursor is on the second line of text.
2. *Press:* `[CTRL-F]` or `→`
Press the control key and the F key at the same time. Repeat this step until the cursor is on the letter "a" in the word "are".

3. *Type:*
and your friends
Don't forget to press the `SPACE BAR` after you type "friends".
4. *Press:* `[CTRL-N]` or `↓`
Press the control key and the N key at the same time. Do this until the cursor is on the second line in the second paragraph. Your cursor should be between the words "text" and "you".
5. *Press:* `[CTRL-B]` or `←`
Press the control key and the B key at the same time. Repeat this step until the cursor is on the "f" in the word "finish".
6. *Type:*
are sure you have
Don't forget to press the `SPACE BAR` after you type "have".
7. *Press:* `[CTRL-F]` or `→`
Repeat this step until the cursor is on the space after "finish".
8. *Type:*
ed

Exit and Save

Ready to exit? Good, let's exit and save this file using the following control sequence:

1. *Press:* `[CTRL-X]` `[CTRL-F]`
Press the control key and the X key at the same time. Then, press the control key and the F key at the same time.

Congratulations! You have saved your first file.

Directory

You have a personal directory that lists all of your files. Let's check to see if your file is really there. The steps below show you how.

1. At the `$` prompt,
Type: `dir`
2. *Press:* `RETURN`

You will have the `SAMPLE.TXT` file and an `EMACS###;1` file in your directory. The `EMACS###;1` file will always be there. Let's enter `EMACS` and make some changes in your file.


Deletion

To make changes in a file, you must use an editor. First, open your SAMPLE.TXT file using EMACS.

1. At the \$ prompt,
Type: `emacs sample.txt`
2. Press: `RETURN`

To erase a letter or word, you use a delete key which deletes one character at a time. Different keyboards have different types of delete keys. Your keyboard may have a rubout key or a special arrow key.

If your terminal doesn't have one of the following keys, experiment to determine which key deletes the character **to the left** of the cursor.

- 
- `RUBOUT`
- A curved arrow.
- A fat arrow located someplace other than the arrow pad.
- `Del`

When we want you to delete the character **to the left** of the cursor, we will use the `DELETE` symbol. The following steps will help you become more familiar with the EMACS editor:

1. Press: `[CTRL-N]` or `↓` once.
You should be on the second line of the first paragraph.
2. Press: `[CTRL-F]` or `→`
Repeat this step until the cursor is on the space after "sample".
3. Press: `DELETE`
repeatedly until you have erased the word "sample".
4. Press: `[CTRL-N]` or `↓`
Repeat this step until the cursor is on the word "When".
5. Press: `DELETE`
repeatedly until you have erased the word "line".
6. Press: `DELETE` one more time.
Notice how the line moved up to the previous line.

7. *Press:* [CTRL-F] or
Repeat this step until the cursor is on the space after “are”.
8. *Press:* *once.*
Notice how the line of text moved down one line.
9. *Press:* [CTRL-F] or *once.*
You should be on the “s” in the word “sure”.
10. *Press:* *once.*
to delete the blank space at the beginning of the line.

Exit and Cancel

You have made a lot of changes in your file. In fact, some of your sentences don't even make sense anymore. You need to exit and cancel this file without saving the changes you made. Follow the steps listed below:

1. *Press:* [CTRL-C]
2. The computer will ask you a question similiar to this one:
Modified buffers exist, do you really want to exit?
3. *Type:*
y
4. *Press:*

Anytime you try to cancel a modified file, the computer will ask you if you really want to exit. If you accidentally press [CTRL-C] and you don't want to exit, just type the letter “n”. Then, you can exit and save your file using the [CTRL-X] [CTRL-F] sequence.

You have cancelled the file with the changes. However, the file that you first typed is still available. If you would like to check and see, do a **directory**.

More Cursor Movements

You have already learned the basic cursor movements. The following control sequences will help you move around the screen a little faster:

- [CTRL-A] moves the cursor to the beginning of a line.
- [CTRL-E] moves the cursor to the end of a line.

Let's edit your file one more time, and you can learn two more cursor movements. Remember, *always* press the control key and the specified key at the same time.

1. At the \$ prompt,
Type: emacs sample.txt
2. Press: `RETURN`
3. Press: `[CTRL-E]`
You should be at the end of the line.
4. Press: `RETURN`
You just created a blank line.
5. Press: `[CTRL-F]` or `[→]`
repeatedly until you are on the word "friends" in the next line.
6. Press: `[CTRL-A]`
This moves you to the beginning of the line.
7. *If you want to correct any typing errors you might have made, do so now using the `DELETE` key and the control sequences. Otherwise, exit your file using either `[CTRL-X]` `[CTRL-F]` to save it or `[CTRL-C]` to cancel it.*

Summary

You have learned a lot in this session. If you would like to learn more, the Academic Computing Support group has other tutorials like this one. An advanced guide to using EMACS is available as well as short handouts on running programs.

Listed below are all of the control sequences you have learned.

- `[CTRL-P]` moves the cursor to the previous line.
- `[CTRL-N]` moves the cursor to the next line.
- `[CTRL-F]` moves the cursor forward one character at a time.
- `[CTRL-B]` moves the cursor backward one character at a time.
- `[CTRL-A]` moves the cursor to the beginning of a line.
- `[CTRL-E]` moves the cursor to the end of a line.
- `[CTRL-X]` `[CTRL-F]` exits and saves your file.
- `[CTRL-C]` cancels your file without saving it.