MORSECODE MASTER
LEARNING
Learn and practice characters, words, and sentences in Morse Code
(ages 8 and up)

by James Bayless
Requires: ATARI BASIC Language Cartridge
Cassette version (1):
(APX-10211)
ATARI 410 Program Recorder
24K RAM

Diskette version (1):
(APX-20211)
ATARI 810 Disk Drive
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Introduction

OVERVIEW

Most systems of teaching Morse code are limited to drills of single characters (letters, numbers, and punctuation marks). But when you put the code into use, you have to recognize words, phrases, and sentences. MORSECODE MASTER prepares you to use the code realistically, by drilling not only individual characters, but also whole words and complete sentences.

Begin by typing the character you want to learn. The program sounds the code for that character three times in long and short beeps. When you're ready to practice, you can listen to characters chosen randomly and try to identify them. Then you can practice with words. The program signals whole words from its repertoire of 400, and you type them in response. If you don't understand, you can ask for the answer. Finally, you can practice complete sentences as your proficiency grows. This is the most accurate simulation of what it's like to use Morse code. At any time, you can vary the speed and pitch of the drills.

REQUIRED ACCESSORIES

ATARI BASIC Language Cartridge

Cassette version

24K RAM
ATARI 410 Program Recorder

Diskette version

32K RAM
ATARI 810 Disk Drive

CONTACTING THE AUTHOR

Users wishing to contact the author may write him at:

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Austin, TX 78753
Getting started

LOADING MORSECODE MASTER INTO COMPUTER MEMORY

1. Insert the ATARI BASIC Language Cartridge in the cartridge slot of your computer.

2. Have your computer turned OFF.

3. If you have the cassette version of MORSECODE MASTER:
   a. Turn on your TV set.
   b. Insert the MORSECODE MASTER cassette into the program recorder’s cassette holder and press REWIND on the recorder until the tape rewinds completely. Then press PLAY to prepare the program recorder for loading the program.
   c. Turn on the computer while holding down the START key.
   d. When you hear a beep, release the START key and press the RETURN key. The program will load into computer memory and start automatically.

If you have the diskette version of MORSECODE MASTER:
   a. Turn on your disk drive.
   b. When the BUSY light goes out, open the disk drive door and insert the MORSECODE MASTER diskette with the label in the lower right-hand corner nearest to you. Close the door.
   c. Turn on your computer and your TV set. The program will load into computer memory and start automatically.

THE FIRST DISPLAY SCREEN

The program displays the following message while it’s loading into computer memory:

Now Loading
MORSECODE MASTER
PLEASE STAND BY

When the program has finished loading, you hear a message in Morse code. The following screen appears:
MORSECODE MASTER
(C)1983 J BAYLESS
A MORSE CODE TUTORIAL SYSTEM

Morse Code was invented by Samuel Morse in 1838 as a method of sending messages over the telegraph. Morse Code is still used today by shortwave radio operators.

I am here to assist you in learning this Code, but it will take patience and practice on your part.

Before we begin, would you please type in your name for me?

Figure 1 First display screen
Using MORSECODE MASTER

ENTERING YOUR NAME

When the first display screen (Figure 1) appears, type a name of nine or fewer letters. If your name is longer than nine letters, the following prompt appears:

I'm afraid that's too long for me. Please give me a shorter name.

Use an abbreviated form or a nickname. When you've entered your name, press the RETURN key.

PROGRAM OPTIONS

The program begins with the following explanation:

MORSECODE MASTER
(C) 1983 J BAYLESS
A MORSE CODE TUTORIAL SYSTEM

There are several levels at which you may study:

1) Review Morse Code letters/numbers
2) Practice single letters/numbers
3) Practice words
4) Practice sentences

You may also vary the sending speed and pitch at any time.

As soon as you are ready, GENE, then please press RETURN.

Figure 2 Program explanation screen
When you press the RETURN key, the main menu appears as follows:

MORSECODE MASTER
MAIN MENU
SPEED = 13 wpm

A - Review codes of letters & numbers
B - Lessons on single codes
C - Practice receiving single codes
D - Practice receiving single words
E - Practice receiving single sentences
F - Change sending speed
G - Change sending pitch

What is your selection, GENE?

Figure 3 Main menu

To make your choice, type one of the letters and press the RETURN key. Whenever you’ve chosen one of the options and wish to return to the main menu, press the OPTION key. The following is a description of each of the menu options:

A - Review codes

This option teaches you the Morse code for the individual characters you request. Type A and press the RETURN key to see the following screen!
MORSECODE MASTER
REVIEW CODES
SPEED = 13 wpm

Please type in a character

- Type in a character from those below:
  A thru Z  0 thru 9  ,,:,?;:/-

  and I will send its Code.

  Press: OPTION to Exit

Figure 4  Review codes screen

The characters on the screen are the only ones the program teaches. Type one of the letters, numbers, or punctuation marks to hear the Morse code for that character. The program repeats the signal three times. To choose another menu item, press the OPTION key.

B - Lessons on single codes

In these lessons, the program drills you on individual Morse code characters. To select this option, type B and press the RETURN key. Next decide on which kind of characters you'd like to study, by choosing one of the following:

MORSECODE MASTER
CODE LESSONS

A - Vowels: A,E,I,O,U,Y
B - Common consonants
C - Other consonants
D - Numbers 0 through 9
E - Punctuation: ,,:,?;:/-

Which lesson, GENE?

Figure 5  Single codes categories
If you choose B - Common consonants, the program drills you on T, M, N, D, G, K, R, S, W, and C. Option C, other consonants, includes B, F, H, J, L, P, Q, V, X, and Z.

Type the letter of your choice and press the RETURN key. The drill begins as the following screen appears:

MORSECODE MASTER
CODE LESSONS
SPEED = 13 wpm

Type in the character that you hear

Press: START for Repeat
SELECT for Answer
OPTION to Exit

Right: 0     Give Up: 0     Wrong: 0

Figure 6 Single codes lesson

Type the character you heard. The program keeps score for you at the bottom of the screen. If you're wrong, the screen changes color and MORSECODE MASTER displays the following message:

Sorry, GENE, but your answer of [your word] is not correct.

If you want another chance to hear the signal, press the START key. To see the correct answer without trying to give your own answer, press the SELECT key. When you're finished with this option, press the OPTION key to return to the main menu (Figure 3).

C - Practice receiving single codes

This option drills you on single characters. It's similar to the previous option (B - Lessons on single codes) except that you don't choose a category. The signals could be vowels,
consonants, numbers, or punctuation marks.

Type C and press the RETURN key to see the following screen:

MORSECODE MASTER
PRACTICE LETTERS

I will send one character at random from those listed below:

A thru Z  0 thru 9  ,,,?;/-

When I am done, you should type in the characters that you think I sent.

Press RETURN when you are ready.

Figure 7 Practice letters

Press the RETURN key to see a display like Figure 6 (Code lessons). Type the letter, number, or punctuation mark you hear. If you’re right, the screen changes color, informs you of your success, and adds one to your score of right answers.

If you’re wrong, the program displays the following message:

Sorry, GENE, but your answer of [your word] is not correct.

To hear the signal again, press the START key. The number beside "Wrong" on your score goes up one.

If you’re stumped, press the SELECT key. The screen changes color and displays the correct character. The number beside "Give Up" on your score increases by one.
D - Practice receiving single words

Use this option to practice identifying the signals for whole words. Type D and press the RETURN key to see the following instructions:

MORSECODE MASTER
PRACTICE WORDS

I will send one word at random from a list of 400 that I know.

When I am done, you should type in the word that you think I sent.

Press RETURN when you are ready.

Figure 8 Practice words instructions

Press the RETURN key to hear the signals. Type the word you hear. If you're right, the screen changes to green and a message confirms your answer. If you're wrong, the screen changes to red, and MORSECODE MASTER displays the following message:

Sorry, GENE, but your answer of [your word] is not correct.

Press the START key to try again.

If you're not sure, you can press the START key to listen to the signal again. If you've typed half the word before you press the START key, the program erases it and sounds the whole signal from the beginning.

If you have no idea, press the SELECT key, and the screen changes to gold. The word appears as the signal sounds again. To help you review, each letter blinks on and off in inverse video as its signal sounds.

When you're finished practicing with words, press the OPTION key to return to the main menu (Figure 3).
E - Practice receiving single sentences

This is the option to choose when you've had some practice with the others, and when your skill is growing. Type E and press the RETURN key to see the following display:

**MORSECODE MASTER**
**PRACTICE WORDS**

I will send one sentence at random from a list of 100 that I know.

When I am done, you should type in the sentence that you think I sent.

Press RETURN when you are ready.

Figure 9 Practice words drill

Press the RETURN key to hear the signal for a complete sentence. Then type the sentence you think you heard. If you type the right answer, the screen turns green and confirms your answer.

If you're wrong, the screen turns red. The following prompt appears:

Sorry, GENE, the sentence was: [sentence]

If you want to hear the signal again, press the START key. The program sounds the code for the sentence again. If you've already typed part of the sentence, the program erases it when you press the START key.

If you have no idea, you can press the SELECT key to see the sentence on the screen and hear the code again. As the signal for each letter appears, that letter is highlighted in inverse video.

During this option, the program keeps score of your right and wrong answers, and the number of times you gave up.
F - Change speed

The program is set at 13 wpm, but you can change it to any speed from 5 wpm (when you're just beginning) to 30 wpm (when you're more proficient). Type F and press the RETURN key to see the following instructions:

MORSECODE MASTER
SET SPEED
SPEED = 13 wpm

Press: START for Faster Speed
       SELECT for Slower Speed
       OPTION to Exit

Figure 10 Set speed

Press the START key to increase the speed, and the SELECT key to decrease it. The number changes from the 13 on the display. When it's at the speed you want, press the OPTION key to return to the main menu (Figure 3).

G - Change pitch

Use this option to change the pitch to the higher or lower tone you prefer. Type G and press the RETURN key. The following instructions appear on the screen:
MORSECODE MASTER
SET PITCH
Pitch = 50

Press: START for Higher Pitch
SELECT for Lower Pitch
OPTION to Exit

Press START and SELECT
to hold pitch

Figure 11 Set pitch

As you press the START key, you hear the pitch rising. It goes up to a value of 5. Press SELECT to lower the pitch to a value of 255. To hear the tone without changing it, press the START and SELECT keys at the same time. When it sounds the way you want it, press the OPTION key to return to the main menu (Figure 3).

RESTARTING

To restart MORSECODE MASTER, press the SYSTEM RESET key. The program goes back to the introduction and requests that you type your name.
Author's note

Morse Code, like everything else, comes naturally to some people, while others have a difficult time learning it even at a slow sending speed. The following suggestions may help you learn.

Start with a basic familiarity with the code, working on option A - Review Codes at 5 wpm. Type in all the valid characters, and listen for patterns. Use the Appendix, in the next section of this manual, to help. Note that punctuation codes always have six sounds, while numbers always have five. Also note that the codes for numbers follow a simple pattern; if you learn it, you've learned all the numbers. The most frequently used letters have the shortest codes (and this is no accident).

Once you can recognize several codes, move to option B - Lessons on Single Codes. Practice on all the lessons, and in particular the vowels and consonants—they're the bulk of most messages. Avoid random guessing, but if you have an idea, try it. The worst that can happen is a wrong answer, and even that teaches you something. If you have no idea what the character is, let the program tell you, and then memorize it so that you don't miss it the next time. When you can identify most of the characters, move to option C - Practice Characters. This drill helps with the codes you're having the most difficulty on. Review the lessons on those characters.

Once you're familiar with the codes, try to receive words. If you find that you consistently have to ask to hear it over again, either reduce the sending speed or go back and review the codes for individual characters. Don't hesitate to ask the program for the answer; sometimes that's the quickest way to learn.

Now that you can receive words comfortably, go on to sentence practice. You may also wish to try increasing the sending speed and go back to practicing words again. A reasonable goal is to receive sentences at 13 wpm.

Finally, don't become frustrated, because that will surely hamper your learning. If you've reached a certain level, but can't seem to go beyond it, don't give up. This is normal in learning. People reach a plateau of ability that lasts for a while until suddenly they're able to move far beyond that level. This is the nature of learning curves.
Appendix – Morse code

Since Morse code is designed to be recognized by the ear, and not the eye, then it’s important NOT to clutter your mind with silly pictures of "dots" and "dashes." The code shown below uses the terms "dah" and "dit", with dah representing a long time, and dit a short one. The code is first shown in the usual alphabetical order, and then in groups of similar sounds.

ALPHABET

A  dit dah
B  dah dit dit dit
C  dah dit dah dit
D  dah dit dit
E  dit
F  dit dit dah dit
G  dah dah dit
H  dit dit dit dit
I  dit dit
J  dit dah dah dah
K  dah dit dah
L  dit dah dit dit
M  dah dah
N  dah dit
O  dah dah dah
P  dit dah dah dit
Q  dah dah dit dah
R  dit dah dit
S  dit dit dit
T  dah
U  dit dit dah
V  dit dit dit dah
W  dit dah dah
X  dah dit dit dah
Y  dah dit dah dah
Z  dah dah dit dit
Tones

One Tone:

E  dit
T  dah

Two Tones:

A  dit dah
I  dit dit
M  dah dah
N  dah dit

Three Tones:

D  dah dit dit
G  dah dah dit
K  dah dit dah
O  dah dah dah
R  dit dah dit
S  dit dit dit
U  dit dit dah
W  dit dah dah

Four Tones:

B  dah dit dit dit
C  dah dit dah dit
F  dit dit dah dit
H  dit dit dit dit
J  dit dah dah dah
L  dit dah dit dit
P  dit dah dah dit
Q  dah dah dit dah
V  dit dit dit dah
X  dah dit dit dah
Y  dah dit dah dah
Z  dah dah dit dit
Numbers:

0  dah dah dah dah dah
1  dit dah dah dah dah
2  dit dit dah dah dah
3  dit dit dit dah dah
4  dit dit dit dit dah
5  dit dit dit dit dit
6  dah dit dit dit dit
7  dah dah dit dit dit
8  dah dah dah dit dit
9  dah dah dah dah dah

Punctuation:

.  dit dah dit dah dit dah
,  dah dah dit dit dah dah
?  dit dit dah dah dit dit
;  dah dit dah dit dah dit
:  dah dah dah dit dit dit
-  dah dit dit dit dit dah

Miscellaneous:

/  dah dit dit dah dit
Review Form

We're interested in your experiences with APX programs and documentation, both favorable and unfavorable. Many of our authors are eager to improve their programs if they know what you want. And, of course, we want to know about any bugs that slipped by us, so that the author can fix them. We also want to know whether our instructions are meeting your needs. You are our best source for suggesting improvements! Please help us by taking a moment to fill in this review sheet. Fold the sheet in thirds and seal it so that the address on the bottom of the back becomes the envelope front. Thank you for helping us!

1. Name and APX number of program.

2. If you have problems using the program, please describe them here.

3. What do you especially like about this program?

4. What do you think the program's weaknesses are?

5. How can the catalog description be more accurate or comprehensive?

6. On a scale of 1 to 10, 1 being "poor" and 10 being "excellent", please rate the following aspects of this program:
   - [ ] Easy to use
   - [ ] User-oriented (e.g., menus, prompts, clear language)
   - [ ] Enjoyable
   - [ ] Self-instructive
   - [ ] Use (non-game programs)
   - [ ] Imaginative graphics and sound
7. Describe any technical errors you found in the user instructions (please give page numbers).

8. What did you especially like about the user instructions?

9. What revisions or additions would improve these instructions?

10. On a scale of 1 to 10, 1 representing "poor" and 10 representing "excellent", how would you rate the user instructions and why?

11. Other comments about the program or user instructions:

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