

Just Learn Morse Code

Just Learn Morse Code is designed to make it easy to learn Morse code, as well as improve the skills of those who already know the code.

The basic methods used to achieve this are [Koch's method](#) and [Farnsworth timing](#).

Features

- Accurate Morse code timing
- Thorough evaluation of code copied
- Customizable character set
- International characters
- Prosigns
- Selectable speed, pitch and volume
- Optional Farnsworth timing
- Creating Morse code audio files
- Generate Morse code from text files
- Practice selected characters
- Practice common words, abbreviations and Q codes
- Optional dual pitch for initial learning
- and more

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Koch's method

Traditionally, Morse code has been taught by struggling through all the codes at a slow speed and then (slowly) progressing towards higher speeds.

Koch's method, on the other hand, dictates that you should start learning at the desired speed - but you start with only two characters. Each session is five minutes long, and whenever you get 90% or more correct, you add another character.

Just Learn Morse Code utilizes Koch's method for teaching Morse code.

Koch's method was invented by German psychologist Ludwig Koch in the 1930s.

For more information about this method, see [David G. Finley's \(N1IRZ\) page](#).

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Farnsworth timing

Traditionally, reducing the speed of Morse code has been done by making everything take longer, i.e. both the sounds and the silent periods between them.

Using Farnsworth timing, characters are sent at the same speed as at higher speeds, while extra spacing

is inserted between characters and words to slow the transmission down. The advantage of this is that you get used to recognising characters at a higher speed, and thus it will be easier to increase the speed later on.

Using Farnsworth timing is optional in Just Learn Morse Code.

The [ARRL](#) uses Farnsworth timing for transmissions, practice and test tapes up to 18 WPM (90 CPM).

Farnsworth timing was invented by Donald R. Farnsworth (W6TTB) in the late 1950s.

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Getting started

First of all, read about [Koch's method](#) and [Farnsworth timing](#) if you haven't already.



Click the Play button.



Adjust the speed to your desired level. For now, you should do this by changing the first of the two numbers. If you're uncertain about what speed to use, just use the default setting of 12/18 WPM.



If you want to see the text that is being sent, click the View Output button. Click the same button again to hide the output.



Click the Stop button.

Now you're ready for [Your first session](#).

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Your first session



Set the number of characters used to two.



You will see that two characters are emphasized. Click on either one to listen to what that character sounds like. Do this a few times for each of the two characters, so that you get used to them.

Your first session will last for five minutes, and you are supposed to enter as many of the characters that are sent as you possibly can. If you make a mistake, don't worry about it, everybody makes mistakes and it is not necessary to copy 100% in order to learn Morse code effectively.



Click the Play button, and get ready to type.

When your session is over, you may want to read about how to interpret your [Session results](#).



You might also click the Stop button at any time to have your performance evaluated immediately.

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Dual pitch

For initial learning, there is an option for using two different pitches - one for the dits and one for the dahs. If you think this might be helpful, enable dual pitch in the [General options](#) dialog.

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Visual aid

You can show or hide the Morse codes for each character with the View Codes setting in the [General options](#) dialog.

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Session results

When you've completed a session, your results will be presented on screen. There is a short delay between the last character transmitted and the appearance of the results. This is by design, and is intended to give you time to enter the last couple of characters transmitted.

Your overall score is presented, along with the score of each individual character. [Koch's method](#) dictates that whenever you score 90% or better, you should add another character. This is somewhat ambiguous, as it is possible to get an overall score of more than 90% and at the same time get less than 90% on some of the individual characters.

When beginning to learn, the recommended way to interpret this is that if everything (the overall score as well as the individual character scores) is 90% or above you move on. Also, missing a few spaces is hardly a big deal if you score above 90% on everything else, so you could settle for a lower score on the spaces.

As you add more characters, the individual percentages get less important. For instance, when dealing with 30 different characters, some characters might only occur one or two times in a session. If you miss one of them, the percentage for that character will look rather bad even though you got everything else 100%.

So, at some point you should ignore the individual percentages. When the overall percentage is good (well above 90%), make an intelligent decision based on the number of hits and misses for the seemingly worst characters.

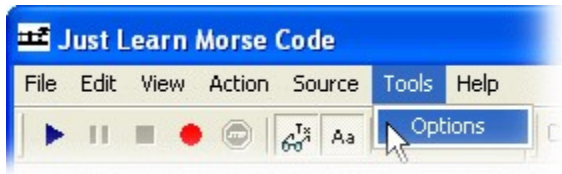
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Changing settings

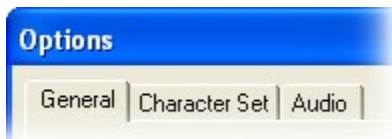
All Just Learn Morse Code settings can be changed in the [Tools Options dialog](#) and the [Source menu](#).
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Tools Options dialog

Most Just Learn Morse Code settings can be changed in the Tools Options dialog.



Select Options in the Tools menu.

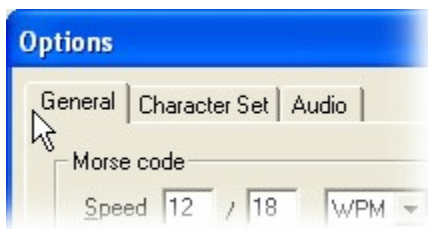


Settings are divided into three different categories : [General options](#), [Character set options](#) and [Audio options](#).

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General options

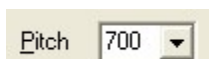
These options are accessed through the [Tools Options dialog](#).



Morse code settings



Speed settings consist of two numbers and a speed unit. The first number is the word speed, or overall transmit speed. The second number is the character speed. The speed unit is either WPM (words per minute) or CPM (characters per minute).



The pitch (tone) of the Morse code.

☐ Dual pitch

If selected, Morse code will be generated with a higher pitch (tone) for dits than for dahs. The difference in pitch is rather big while working on just a few characters, and then gradually decreases as you approach 20 characters. At 20 characters and above, this setting has no effect.

Characters of 44

The number of different characters used in the generated Morse code.

Min word length Max word length

The length of each word of generated Morse code will vary between these two values.

Prosign spacing

The number of spaces sent after a prosign in the generated Morse code. Increasing this value will yield more time for [typing the prosign](#).

Mode

There is two different modes - Learn and Practice.

In Learn mode, the last character added is highlighted on the screen. Also, the last two added characters are more likely to occur in the generated Morse code in this mode.

In Practice mode, all characters are treated equal.

Session settings

Duration minutes

The length of each session. [Koch's method](#) dictates that this should be 5 minutes.

Initial delay seconds

The amount of time from when the Start button is clicked until the session starts.

End delay seconds

The amount of time from when the last character is sent until the system stops waiting for characters to be entered. Subsequently, the [Session results](#) dialog will appear on the screen.

Output window settings

☐ View output

If checked, the Morse code that is sent will be displayed on the screen.

☐ Uppercase letters

If checked, the Morse code that is sent will be in uppercase when displayed on the screen.

Saved text setting

☒ Insert linefeeds

If checked, text files saved when creating Morse audio files will contain multiple lines of text rather than just one line of text.

Font setting

Font

The font used for text in the input and output windows.

Visual aid setting

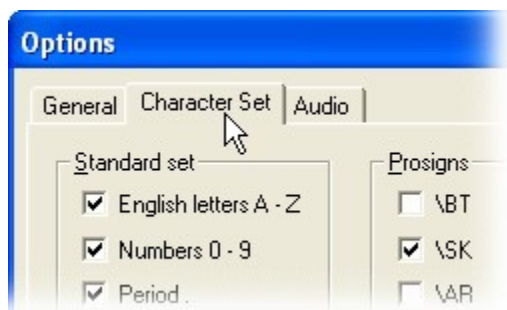
☐ View codes

If checked, Morse codes will be displayed next to each character.

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Character set options

These options are accessed through the [Tools Options dialog](#).

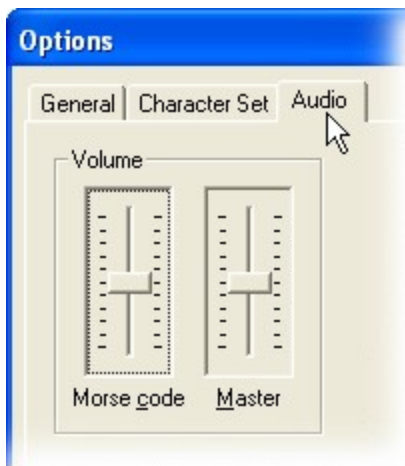


Check the characters that should be included in the generated Morse code.

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Audio options

These options are accessed through the [Tools Options dialog](#).



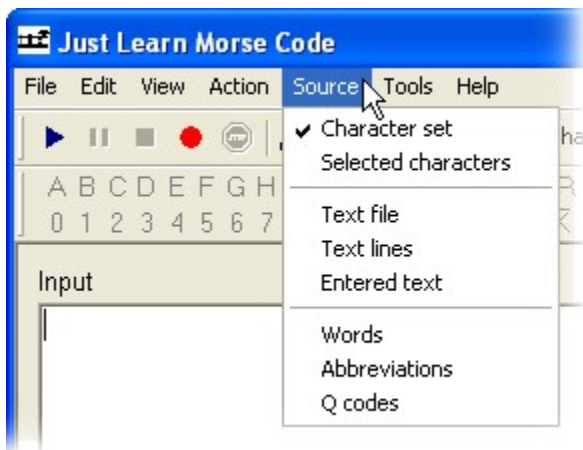
These sliders control the volume of the generated Morse code. The slider on the right controls the range for the slider on the left, and should only be used if necessary.

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Source menu

The source of Morse code generation can be selected in the Source menu.

NOTE: You should not change the default setting until you know all the characters.



Character set

This is the default setting. Characters are taken from the set selected in the [Character set options](#), and [Koch's method](#) is used for learning the characters.

All the other Source menu settings allow for any character to be used.

Selected characters

This setting allows you to practice selected characters, and might be useful for any trouble spots you've

noticed.

Text file

Whenever you click the Play or Record button, you will be asked to specify a text file to be used for generating Morse code.

Text lines

Similar to the Text file option, except random lines from the text file are used for generating Morse code.

Possible uses include practice QSOs, custom word lists and sentences in any language.

Entered text

This setting allows you to enter a different text every time you click the Play or Record button.

Words

Produces a mix of words selected from the most common words in the English language.

Abbreviations

Random abbreviations typical to real life Morse code.

Q codes

Q codes used in real life Morse code.

Note: Words, abbreviations and Q codes may be combined.

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Entering prosigns

All prosigns except **+** and **=** are entered with a backslash in front of the letters, e.g. \BT \CL etc.

You can adjust the silent period after a prosign is sent with the Prosign Spacing setting in the [General options](#) dialog.

You should always enter one space after entering the prosign, regardless of this setting.

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Creating audio files



Click the Record button.

You will be asked for a file name for the audio, and also get the option of creating a text file containing the sent text.

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Becoming proficient

Once you know all the characters, turn on [Practice mode] in the [General options](#) dialog.

The following steps will help you gain proficiency :

[Step 1: Bridge the gap](#)

[Step 2: Add meaning](#)

[Step 3: Lose the keyboard](#)

[Staying proficient](#)

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Step 1: Bridge the gap

If you've been using [Farnsworth timing](#) up to now, it's time to head towards standard timing.

Add 1-2 WPM (5-10 CPM) to the word speed at a time, and then practice until you're satisfied with your results.

Repeat this until the word speed matches the character speed, and then go to [Step 2: Add meaning](#)

Note: You may find it helpful to reduce the session duration when increasing the speed. It's better to perform great for 1-2 minutes than getting mediocre results after 5 minutes.

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Step 2: Add meaning

Now that you're at your target speed with random code, it's time to start practicing code that you might come across in the real world.

Start out practicing just a few common words, then add more words as you get better at recognising the words while you copy. Just Learn Morse Code lets you choose how many of the 1,000 most common words in the English language to use, e.g. you could start with the top 25, then use the top 50 and so on.

You may also want to practice common Morse code abbreviations and Q codes.

For even more meaning, use text files or entered text of your choice for practicing.

You can specify how code is to be generated in the [Source menu](#).

When you're satisfied with your ability to become aware of words and sentences while copying, go to [Step 3: Lose the keyboard](#)

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Step 3: Lose the keyboard

Now that you're used to becoming aware of words and sentences while copying, practice copying without using the keyboard.

If you use words, abbreviations and Q codes for this, you should use pencil and paper.

Using text files or entered text, you could practice without writing at all - just sit back, relax, and listen to the text.

Reducing the speed might prove helpful for the initial attempts to copy on paper.

[Staying proficient](#)

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Staying proficient

Once proficient, you may still want to practice every once in a while, even if you're actively using Morse code on the air.

You may have identified a few trouble spots, i.e. characters that sometimes make you stop for a moment while copying.

Some characters are not encountered as often as others on the air and these are also candidates for practice.

Typically, these characters will include the @, punctuation, prosigns and any non-english characters you'd like to remember.

You can practice these characters by using the [Selected characters] option in the [Source menu](#).

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