

Suggestions and tips for learning Morse Code

- based on HB9HQX Morse 7 software -

Supplement: On the road with the CW Trainer

With the help of these instructions, you can create and switch among a number of learning profiles in the software, which in turn allow you to choose from a variety of methods to learn Morse Code - and even earn a lapel pin to show your accomplishments!



Review HTC Morse Code exam

Exam file

Open Terminate

HB9HTC 100 1.txt

John Brexter

HB9HTC 100 cpm

Begin

26.06.2020 10:05:53

End

26.06.2020 10:09:57

Duration of exam

04:04

Save the exam

26.06.2020 10:10:52

00:00:55

Correct exam

Display errors

337 characters

7 = 2.1 % errors

Open PDF

Save as PDF

Played Text (Examination Template)

49150 06835 **d14jyt** de gm0soz r ok frank mni tnx fer ur rppt from inverness hr qth is glasgow es name is les ur rst 358 wid some qsb rig is ic765 ant dipole pwr is **50w**. a good listener is not only popular everywhere, but after a while he gets to know something. wilson **mizner**. early to bed and early to rise makes a man **healthy**, wealthy and wise. hb2mm dk0iu hb9aut d19zbn vzflb xwhkg ydqrs opjcu heuyc iyyad vk1gl saex

Text of the examination candidate

49150 06835 **d15jyt** de gm0soz r ok frank mni tnx fer ur rppt from inverness hr qth is glasgow es name is les ur rst 358 wid some qsb rig is ic765 ant dipole pwr is **60w**. a good listener is not only popular everywhere, but after a while he gets to know something. wilson **mezner**. early to bed and early to rise makes a man **healhty**, wealthy and wise. hb2mm dk0iu hb9aut d19zbn vzflb xwhkg ydqrs opjcu heuyc iyyad vk1gl saex

Comment

Example text for the HTC Morse Code examination (showing corrections in red)

info@hb9htc.ch

Topics

Section		Beginner	Advanced
1	Introduction	x	x
2	What does a Morse Code character sound like?	x	
3	Writing text down to check your progress	x	
4	Learning characters (method 1)	x	
5	Character set with the Morse Trainer (method 2)	x	
6	Keying for a change of pace and to master characters	x	
7	With character set learned, master it thoroughly	x	x
8	Copy in your head – memory training		x
9	Learning to send text (straight key or not?)	x	x
10	HTC Morse Code examination		x
11	Creating MP3 audio files	x	x
12	Listening to Morse Code while on the road	x	x
13	Sending Morse Code while on the road	x	x

Section 1 – Introduction

This document explains a suggested method for learning Morse Code. Towards this goal, the Helvetia Telegraphy Club (HTC) uses the HB9HQX Morse 7 software available on the club website.

Note that all operating details and many other tips can be found in the HB9HQX Morse 7 [help files](#).

This document is being continually updated based on the latest version of the software as well as experience gained while teaching Morse Code courses.

In such courses, it soon becomes apparent that students have varying levels of capability and interest. Often, new students and those getting back into the hobby are lumped into one group of students, or a new student might jump into a course already in progress.

Here, our goal is to help someone learning Morse Code determine which stage of study they should target based on what they have already achieved and their personal situation. In this way, a student can set up and save a suitable user profile for the software to their individual needs. In this way, it is also possible for an instructor to work with groups of students, each with their different level of capability, by using multiple user profiles.

A student will generally stick with a given user profile over an extended period of learning.

User profile

1 Standard ▾

Save settings

When sending/receiving Morse Code, you hear acoustic patterns and learn to assign each one to a specific letter of the alphabet, number or punctuation mark. Be sure to focus on the acoustic patterns and avoid other aids such as counting dots and dashes or using a visual tool.

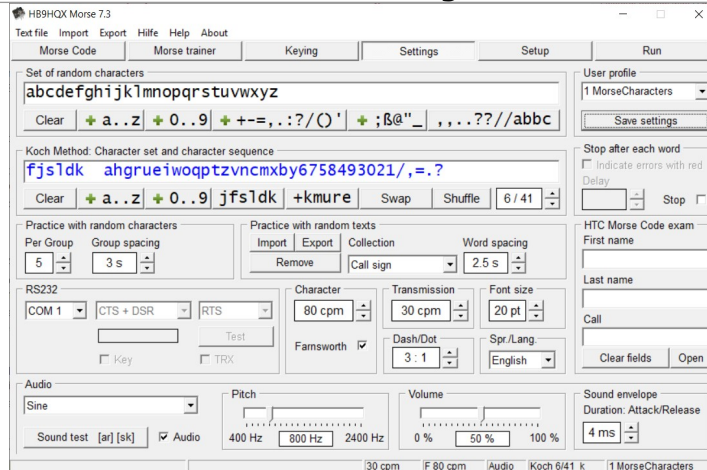
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Section 2 – What does a Morse Code character sound like?

If you would like to concentrate just on the acoustic pattern of a specific character, how can you go about listening to the corresponding Morse Code character?

Setting up Profile 1:

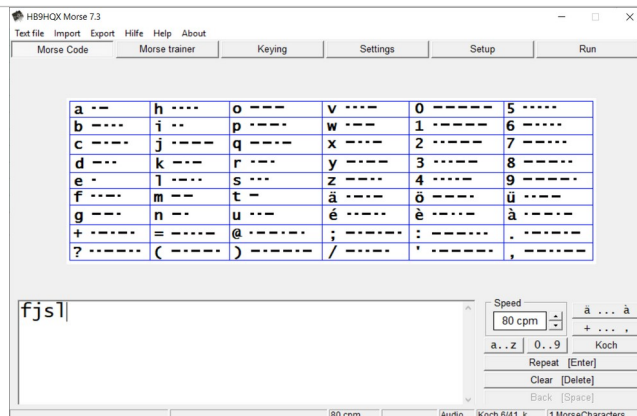
Initial settings



Profile 1 – MorseCharacters

Tab	Panel	Parameter	Selection
Settings	Koch Method	Jsfldk...	jsfldk (or more as you like)
	Character	cpm	80 cpm
		Farnsworth check box	✓
	Transmission		30-40 cpm
	Practice with random characters	Per Group	5
		Group spacing	3 s
	Stop after each word		Off
	Audio	Audio check box	✓
Morse Code	User profile	1 MorseCharacters	Save this profile
			Select this tab

Morse Code tab



Whenever you press a key on the keyboard, you hear the character and also see it appear in the lower window. By pressing the same key multiple times you can better burn into your memory the sound of this character. You can simplify this procedure by clicking on Repeat or simply hitting the Enter key – all the characters in the lower window are now sounded out again. If you hit the Koch button, all the characters you have selected in the Settings tab in the Koch Method panel are activated. Afterwards you can practice as outlined in **Section 4 – Learning characters.**

Note: if you wish to speak a character out loud, then do so in this way:

B = dah di di dit etc.

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Section 3 – Writing text down to check your progress

While learning letters and numbers, it is recommended that you check your progress by writing down the characters as you hear them, doing so either on a keyboard using the software's lower data-entry window or simply by hand on paper.

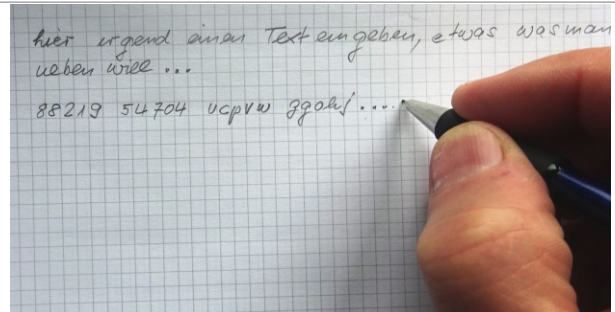
Those who wish can start learning the Morse Code characters by touch-typing with both hands on the keyboard. In courses that teach touch-typing, students frequently practice by typing what they see in front of them; we can do the same by typing in what we hear.

Character sequence just as on the keyboard: jgkfls...

If you are a good touch-typist, enter the characters you hear at the keyboard – otherwise write them down. Don't try to learn touch-typing and Morse Code at the same time, concentrate just on telegraphy!

Advanced students:

To achieve certain advanced goals, I recommend just listening without writing anything down. (see Copying in your head, Section 8)



Text entry using the keyboard; it is possible to set up automatic checking of what you enter

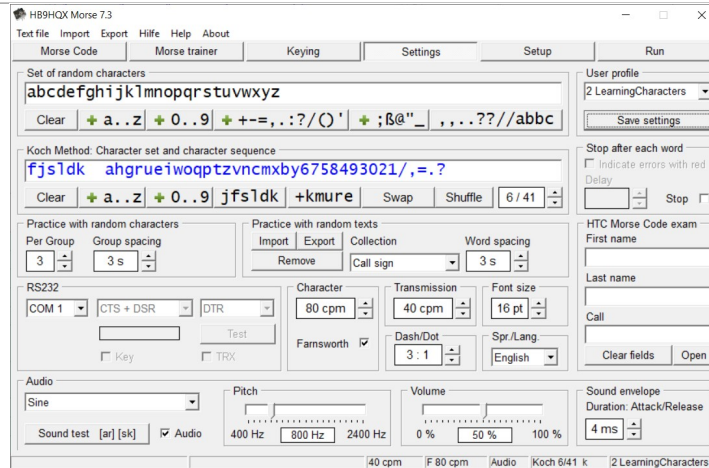
Writing down text by hand
You can make a visual comparison with the text supplied by the PC, and thus do not select a character set that is excessively large.

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Section 4 – Learning characters (Method 1)

Learning and practicing letters and numbers with the Koch Method.
For self-checking, either enter what you hear on the keyboard or write it down.

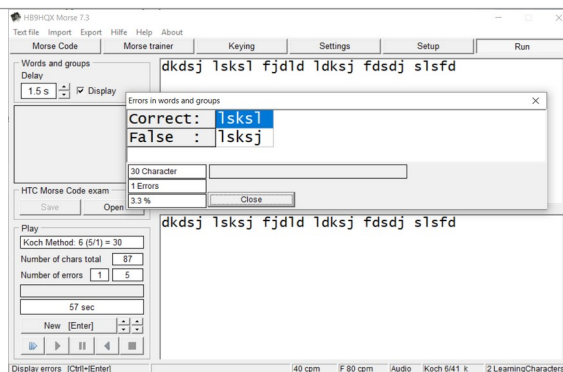
Setting up Profile 2:



Profile 2 – LearningCharacters

Tab	Panel	Parameter	Selection/Remarks
Settings	User profile		2 LearningCharacters
	Koch Method character set	Jsfldk...	Jsfldk...(depending on student progress)
	Character	cpm	80 cpm
		Farnsworth check box	✓
		Transmission	30 - 40 cpm (depends on progress)
	Practice with random characters	Per Group	3 - 5 (depending on student progress)
		Group Spacing	3 s
	Stop after every word		Off
	Audio	Audio check box	✓

Tab	Panel	Parameter	Selection/Remarks
Setup	Display errors	Auto check box	✓
	Random characters	Groups	6
		Same Group	1
		Koch check box	✓ (6/41 – depending on student progress)
Run	Words and groups	Play button	Clicking moves focus to the Run tab
		Display check box	Normally off, optional
		Delay	1.5 s
Settings	User profile	▶ button	Starts playback
		2 LearningCharacters	Save settings



When attempting to enter the characters you hear, if you have entered a large number of incorrect characters at the keyboard, or you have not entered spaces at the correct spots, you can hit the Return key to start a new run. At the end of the run, if you see a green background in the lower window you have entered all the characters correctly. If there is a pink background, you have made some errors – which you can then display in a separate analysis window by using the Ctl-Enter key combination.

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Checking your work while writing characters by hand

At the end of a sequence of sent characters, wait for a short time, and the software displays the text just sent out in the upper window to allow visual checking of what you have written down.

Error display following entry of characters from the keyboard

At the end of the sequence of sent characters, wait for a short time and the background color of the lower window appears with either a green (correct) or pink (errors) background.

Ctrl+Return

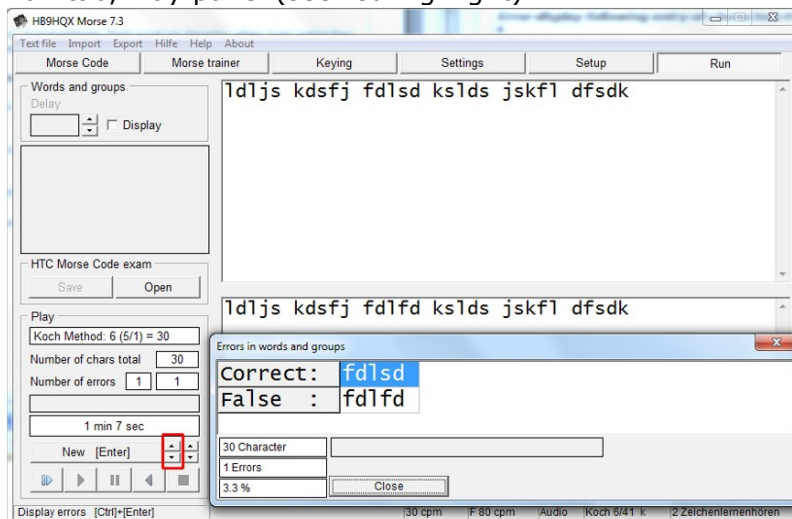
This keyboard chord brings up an error display in the event the number of words (spaces) has been entered on the keyboard correctly (see the earlier screen shot).

Return

Hitting this key generates a new sequence of practice characters and starts sending them.

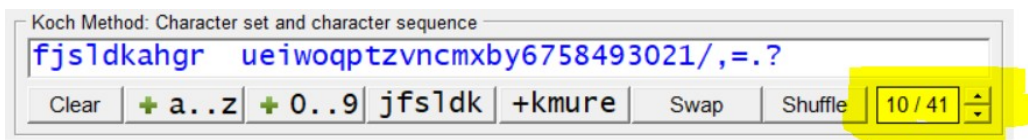
Once you have reached a level of 90% correct entries, you can add an additional character to the set:

Run tab, Play panel (see red highlight):



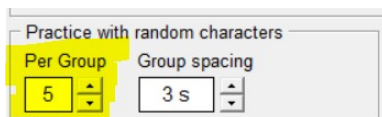
or

Settings tab, Koch Method: Character set... panel



Continue adding characters until the entire alphabet is included.

As an advanced step, you can increase the size of each group to a higher value, a typical one being 5 characters.

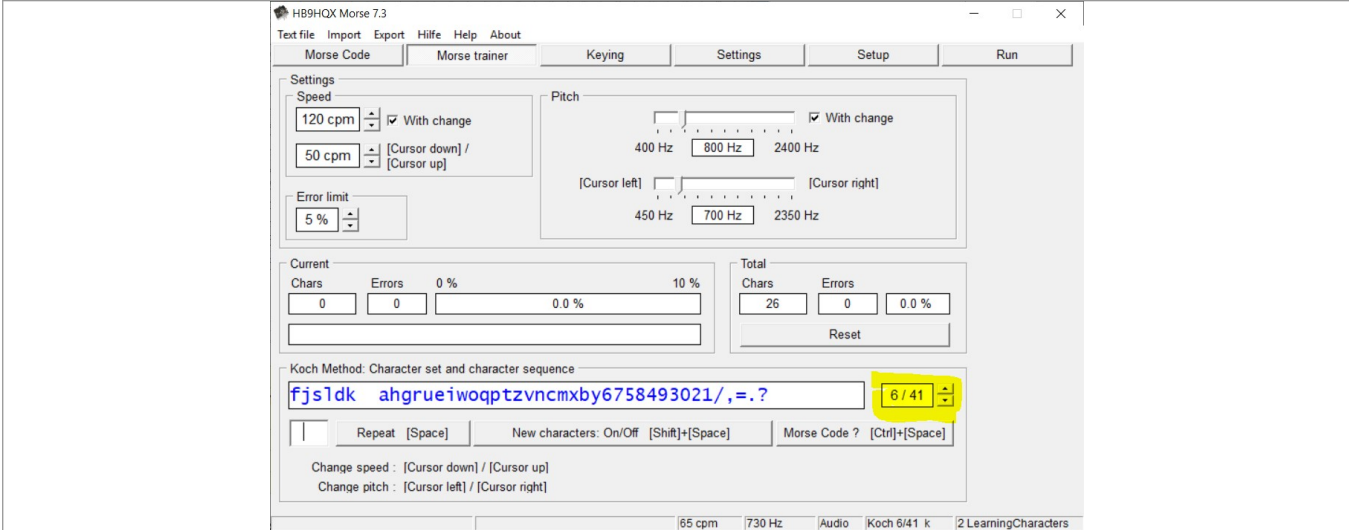


Continue practicing until the number of errors has dropped to an acceptable level.

An alternative way to learn characters is with the method described in Section 5.

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Section 5 - Learning characters (Method 2): the Morse trainer
Using the Morse Trainer, learning the Morse Code alphabet becomes a game!
Here you must enter each character from the keyboard, but you have as much time to do so as you need.



(No profile is necessary)

Tab	Panel	Parameter	Selection/Remarks
Morse trainer	Settings	Speed (highest, lowest) "With change" check box	e.g. 80 cpm / 50 cpm √
	Koch Method: character set		6/41 or use "+ / -" buttons Space

Select the Morse trainer tab
After a moment, the first character is played back, otherwise hit the Space bar. Everything else is self-explanatory.

Enter the characters you hear

*The sequence of characters is initially taken from the Koch Method panel, using the characters in blue.
You can easily modify this to suit your individual needs in that same panel.*

As you improve and get more than 90% correct, you are rewarded with the addition of a new letter of the alphabet.

The faster you enter a character on the keyboard, the faster the next character is sounded out.

Practice until the entire alphabet is added to the list!

Section 6 – Keying for a change of pace and to master characters

When using keying practice as a change of pace, it is recommended you start with a straight key / hand key. The straight key gives you immediate mechanical feedback of the Morse Code characters, and this helps to burn them into your memory.

Please refer to Section 9

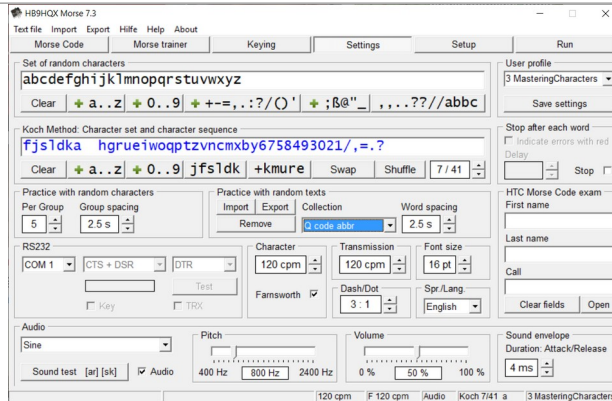
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Section 7 – With character set learned, master it thoroughly

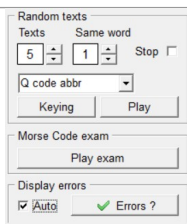
At this point you know all the Morse Code letters and numbers. Now it's time to master them with the help of normal text passages.

Profile 3 – MasteringCharacters

Tab	Panel	Parameter	Selection/Remarks
Settings	User profile		3 MasteringCharacters
	Set of random characters		Include all standard characters
	Character (speed)		80 cpm
		Farnsworth check box	✓
	Transmission		50 cpm (depending on student progress)
	Practice with random characters	Per group	5
		Group spacing	2.5 s
	Stop after each word		Off
	Audio	Audio check box	✓
	User profile	3 MasteringCharacters	Save profile settings

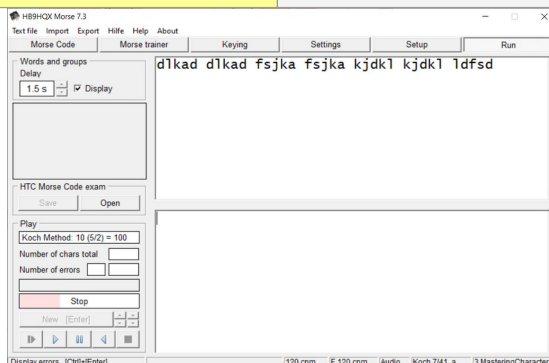


Tab	Panel	Parameter	Selection/Remarks
Setup	Display errors	Auto check box	✓
	Random characters	Groups	6
		Same group	1
		Play	Click on this button



Random texts:
Q code abbr or call sign or your choice.
5-character words (5 Buchstaben) as in Profile 5
Note: you can find additional practice-text files on the HB9HTC website.

Run	Words and groups	Display check box	Off
		Delay	1.5 s
		▶ button	Starts playback
Settings	User profile	3 MasteringCharacters	Save profile settings



Learning Q codes and abbreviations

For more effective communications in telegraphy, operators often use Q codes and abbreviations.

On the HB9HTC website in the Operating Techniques section

<https://hb9htc.clubdesk.com/hb9htc5/morsen/betriebstechnik> you can find lists related to this topic.

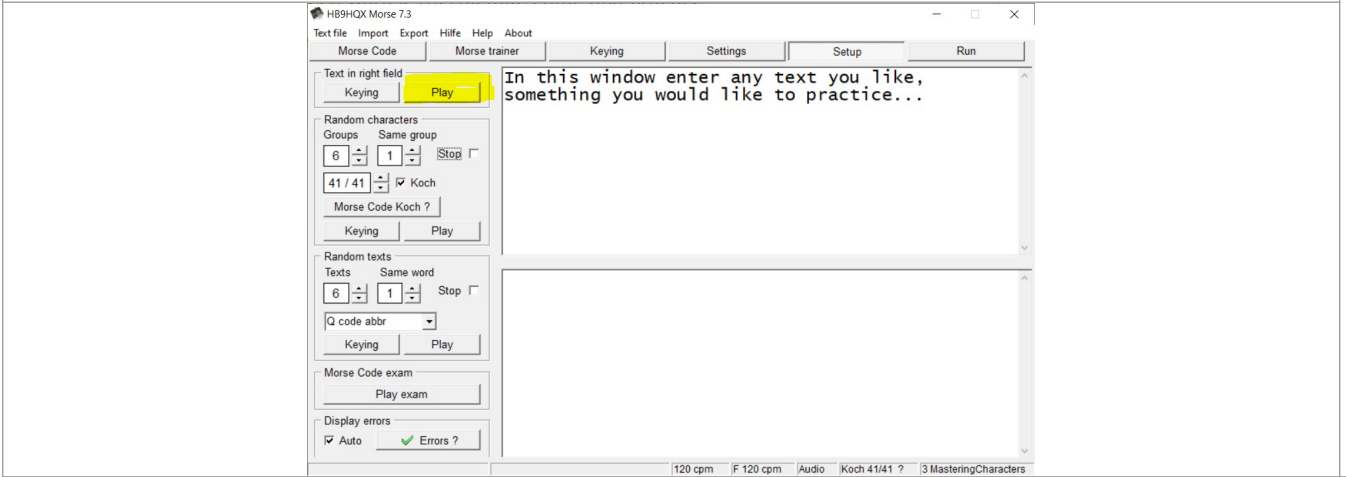
Mastering the alphabet now means gradually increasing the playback speed until it reaches the character speed (80 cpm). During the process, you can also slowly reduce the pause between words. Reaching your goal takes time and practice!

For advanced students, it might make sense to move along to Section 8.

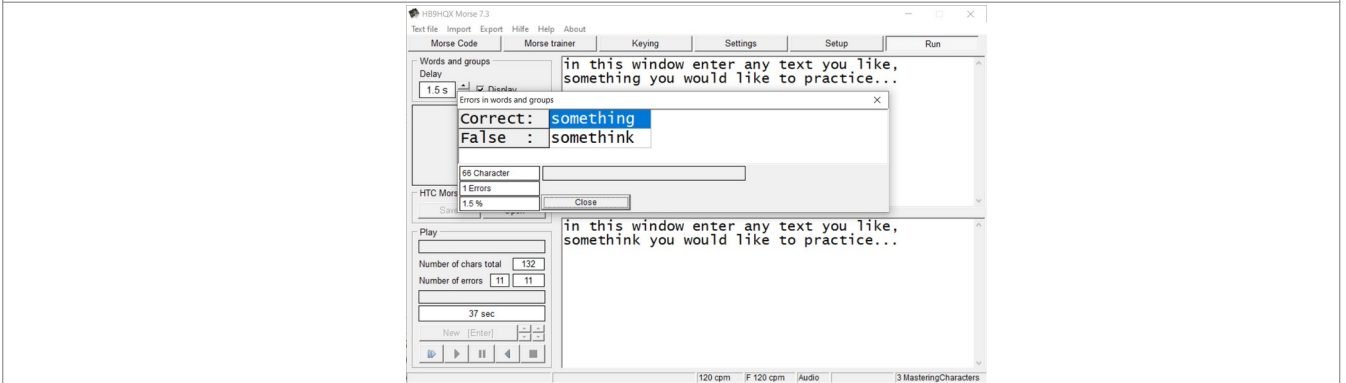
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Section 7.1 – An alternative
Enter your own text, play it back and store it to memory

Tab	Panel	Parameter	Selection
Setup	Display errors	Auto check box	✓
	Text in right field		Enter text in the upper window, as necessary delete existing text.
		Play button	Clicking this button moves focus to the Run tab



Play	Press the ► button, and then enter the text you hear in the lower window When the text is finished playing back, a pink background indicates if there were errors, a green background indicates there were no errors.
Ctrl+Enter	A popup analysis window shows your errors, if any



*You can also save the text and play it back later at any desired speed.
From the Main menu select "Text file", then Save as: (Name).
Location: normally the HB9HQX Morse 7 program folder, for instance as PracticeText 1.txt.
Maybe you want to even create your own QSO text for practicing?*

Now your motto is "daily practice makes perfect"!
Be sure to complete this step of mastering the characters consistently and with perseverance. Once you have improved, you can increase the playback speed, e.g. from 40 to 50 cpm; sometimes it is even helpful to try an even higher speed such as 55 cpm. Experience shows that often certain speed segments are easier to master.
Continue this path until you are at (or almost at) the desired speed, in our example roughly 80 cpm.
Now, for a change of pace, you can also start with Sections **8, 9** or **10**.

Suggestions and tips for learning Morse Code
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**Use the straight key as a change of pace –
further mastering words, abbreviations, call signs and QSO texts**

As a change of pace, it can be useful to include some keying exercises using the straight key. It gives you one-to-one mechanical feedback of each Morse Code character, and that helps burn abbreviations, Q codes and even QSO text into your memory.

Read Section 9

Section 8 - Copy only in your head (memory training)

For advanced telegraphists who already fully master all the characters. We slowly transition from hearing *individual characters* to *entire words*! For these exercises we use only passages containing normal text.

You can work on memory exercises in one of two ways:

“Stop after every word” OR
with “extra pauses between words”

Listening to an entire word

When starting out, it's best to use short *familiar* words with two to four letters. Later, you can move up to complete short sentences or even paragraphs. You should keep the pause between characters (Farnsworth) short – if you don't eliminate it completely!
In turn, select the pause between words and give yourself enough time to enter the word on the keyboard or think it out loud in your head.

Memory training using two different methods (typical values)

Primary parameters have a gray background

Tab	Parameter	Stop after every word	Long pause between words
Settings	Stop after every word	On	Off
	Indicate errors with red	On	On
	(Error Indication) Delay	1 s	1 s
	Word spacing	3 s	3 s
Run	Words and groups – Display check box	Your Choice	Your Choice
	If Display selected	3 s	3 s
Setup	Repeat word if selected	Same word X times	Same word X times
	Repeat word	Shift+Space	

Exercise A: Stop after every word

Listen to the word, think it out loud in your head or enter it at the keyboard.

First press Shift+Space to trigger the word to be repeated.

Hitting the Space bar brings a new word.

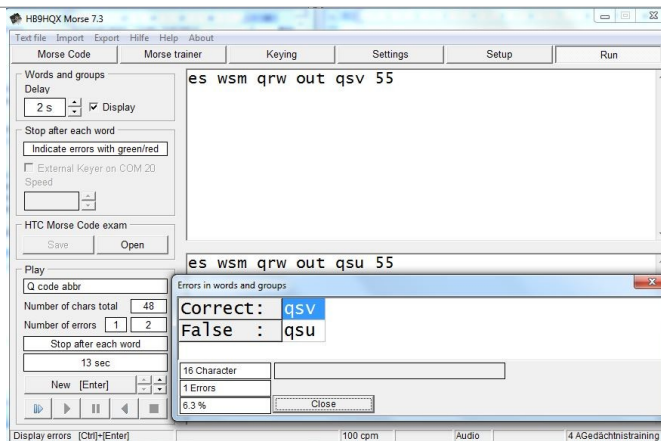
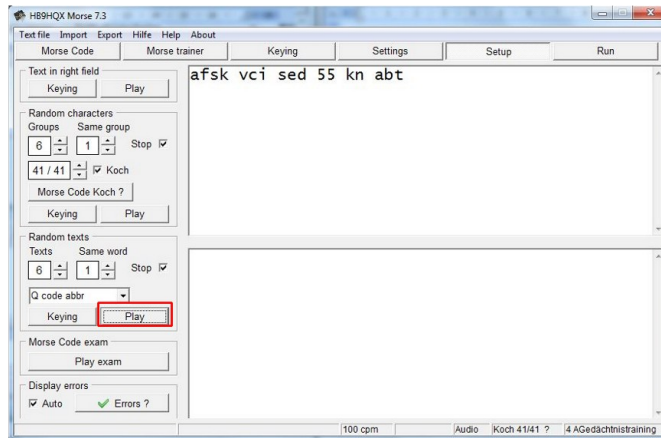
If entering words at the keyboard, there is a delay before a display appears showing any corrections and a colored background.

Tab	Panel	Parameter	Selection
Settings	Set of random characters	abcd...	All letters of the alphabet
	Practice with random texts	Collection	Q code abbr, or another selection
	Character		100 cpm or another selection
		Farnsworth check box	Off
	Transmission		100 cpm or another selection
	Stop after each word	Stop check box	√
		Indicate errors with red	√
		1 s	
	Audio	Audio check box	√

Tab	Panel	Parameter	Selection
Setup	Display errors	Auto check box	√
	Random texts	Texts	6 (1) (depending on text selected)
		Same word	1, or perhaps 2 when starting
		Play button	Clicking moves focus to the Run tab

Suggestions and tips for learning Morse Code based on the HB9HQX Morse 7 software

Run	Words and groups	Display (check box)	Off (if Display if set, adjust)
		Delay	2 s
	Play	▶ button	Click to run exercise
Settings	User profile	4 MemoryTrainingA	Save profile



Practice with random texts:

Select from Q code_abbrev, Call sign, Q code english.

You can find additional practice files in the Menu → Downloads → Public area of the HB9HTC website.

(wait a moment for error-analysis background color to appear)

Ctrl+Enter Brings up error-analysis popup window

Return Clears the screen

Return Starts a new practice run

Profile 4 – MemoryTraining A (once set up, simply let it run)

**Use the straight key every now and then as described in
Section 9**

Look at a word from a prepared list,
close your eyes, send the word smoothly directly from your head.
Repeat difficult words.

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Exercise B: Listening with long pauses between words

B1 For this practice, just listen and concentrate fully on the sound of the word; do not write anything down, perhaps say the word out loud (in your head). As desired, have the word repeated after a delay.

B2 As an alternative, during the long pauses between words you can enter the word on the keyboard so you can see if what you heard is correct.

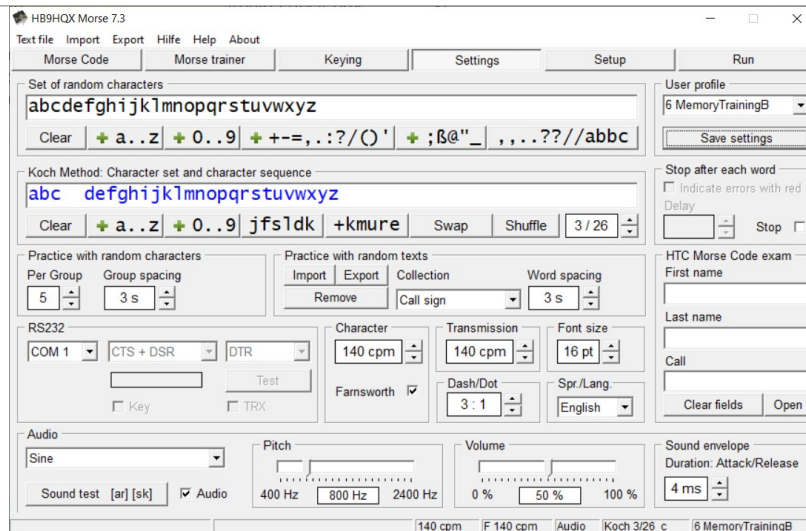
Profile 6 – MemoryTraining B (once set up, simply let it run)

Tab	Panel	Parameter	Selection
Settings	Set of random characters	abcde ...	Select characters set size as you like
	Practice with random texts	Collection	Select whichever plain text you like
		Word spacing	Start with 3 s, reduce as you improve
	Character		=> 100 cpm
		Farnsworth check box	Off
	Transmission		=> 100 cpm
	Stop after each word		Off
		Indicate errors with red	✓ (or Off if you prefer)
Audio	Audio check box	✓	

Practice with random texts:

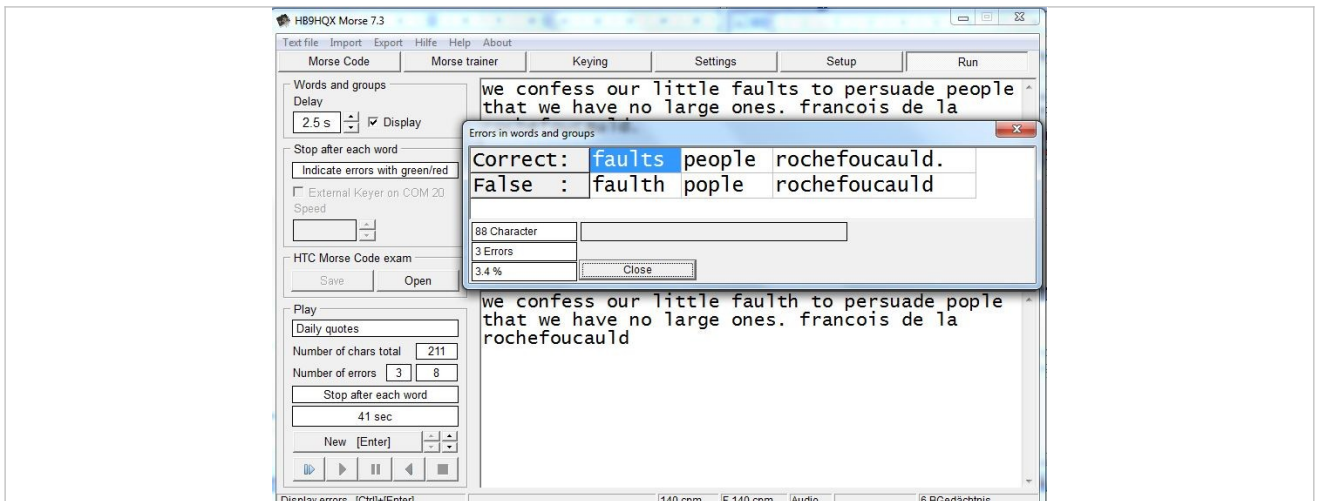
Select from Q code_abbr, Call sign, Q code english.

You can find additional practice files in the Menu → Downloads → Public area of the HB9HTC website.



Tab	Panel	Parameter	Selection
Setup	Random texts		e.g. Daily quotes, if not already loaded
		Texts	1 (one line, for Daily quotes = 1)
		Same word	1
Play	Display errors	Auto check box	✓
	Words and groups	Delay	2.5 s (if you want a display of errors)
		Display check box	✓
Settings	User profile	6 MemoryTrainingB	Name profile, save
Run		▶ button	Practice run starts

Suggestions and tips for learning Morse Code based on the HB9HQX Morse 7 software



At the end
Return key
Return key
Return key

To repeat: Shift+Space bar



Don't write anything down, perhaps say the word out loud softly or simply in your head. Close your eyes, and after the pause between words maybe take a quick peek at the screen. Squeeze in such practice sessions with standard text every now and then. As you improve, reduce the pauses between words, start turning off the display of text on the screen, etc.

As an alternative, in the long pauses between words you can also enter the text at the keyboard. Of course, you can also combine exercise methods A and B in any way you like.

Once you have gained some confidence, try turning on your radio to listen to actual signals – pick out those that you are more easily able to copy. Such memory training sessions are “for real” and help you learn to deal with telegraphy when on the air yourself later.

In earlier days, professional telegraphy operators sent and received messages using standard forms, and 1:1 reception had to be confirmed by the receiving station. The response, again from a standard form, came hours or days later, never right away!

In ham radio, in contrast, we get an immediate response to what we send, and these responses come from the other operator's head, not a form, so do not expect to hear responses in perfectly formed sentences, but instead a series of thoughts.

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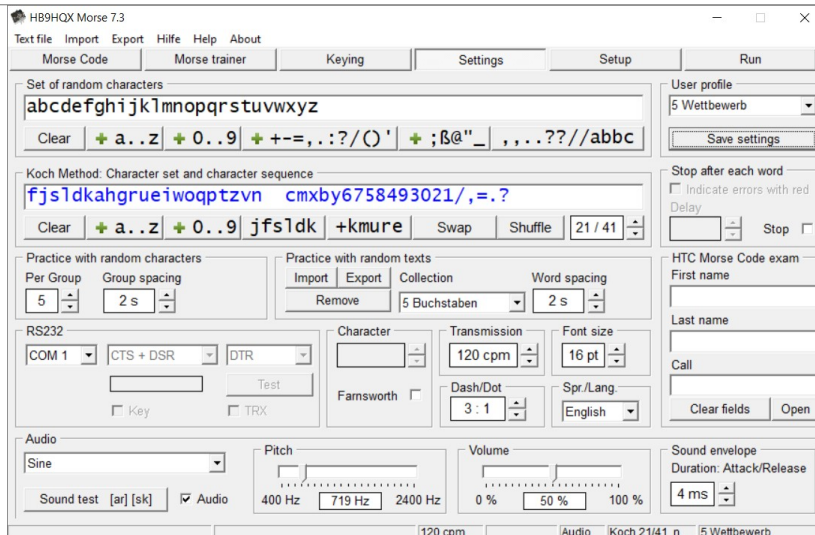
Exercise C:

HTC Morse Code listening competition

User profile 5 Wettbewerb; 5-character words are well suited when starting out to read standard text.

Profile 5 Wettbewerb, select and run

Tab	Panel	Parameter	Selection
Settings	Set of random characters	abcd...	All characters
	Practice with random texts	Collection	5 Buchstaben
		Word spacing	2 s, later can set to 0
	Character		(80 cpm)
		Farnsworth check box	Off
	Transmission		(80 cpm) select
	Stop after every word	Stop check box	Off
		Indicate errors with red check box	✓
	Audio	Audio check box	✓



Tab	Panel	Parameter	Selection
Setup	Random texts		5 Buchstaben
		Texts	7
		Same word	1
Settings	Display errors	Auto check box	✓
	User profile	5 Wettbewerb	Save, start program run
Setup	Random texts	5 Buchstaben	Play
		Play button	Click, moves focus to Run tab
Run		▶ button	Click this button, practice run starts

Use the straight key every now and then as described in Section 9

Look at a word from a prepared list,
close your eyes, send the word smoothly directly from your head.
Repeat difficult words.

Section 9 - Learning to send text

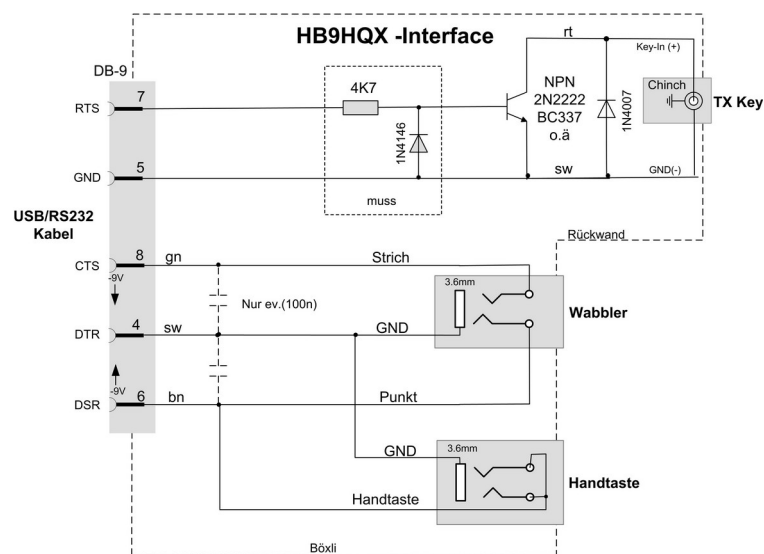
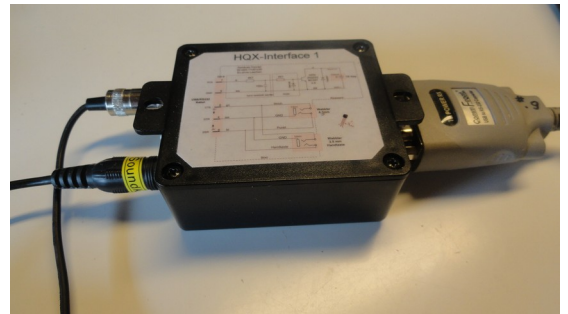
The most frequently asked question:

Is it better to start with a straight key, or turn right away to an electronic keyer?

If during the phase of mastering the letters and numbers you seem to have reached a plateau, I recommend starting to work with a straight key. The rhythm in your hand corresponds exactly to that of the Morse Code character. This mechanical feedback does a great job of helping you burn Morse Code characters into your mind. Experience from teaching courses shows that every participant can more quickly send text without errors when using a hand key; in fact, every hand key student has passed the HTC basic examination (60 cpm) more quickly than those sending text with an electronic keyer. Sending with a keyer requires a great deal more practice. With most current electronic keyers, you must also decide between Mode A and Mode B (squeeze both paddles to get alternating dots and dashes, or using the dot/dash memory), and sometimes even additional sending modes. We do recognize, though, that the student has the overall goal of being able to later send text with an electronic keyer, which is certainly less tiring over long periods of time.

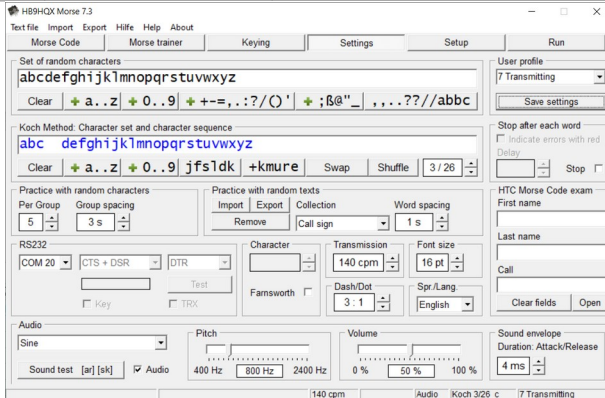
When starting out with keying practice, it is worthwhile to build a small interface that connects the Morse Code key to a PC. With its help and suitable software such as HB9HQX Morse 7 you can get visual feedback about your own sending capability. And in the case of an electronic keyer, you can set the PC up for continuous decoding.

To make sure the audio quality does not depend on that of the sound card in the PC, we recommend you use an external monitor connected to the transmitted signal (TX key).



Suggestions and tips for learning Morse Code
based on the HB9HQX Morse 7 software

Tab	Panel	Parameter	Selection
Settings	RS232	Com20	In the PC Device Manager, look for the COM number
		CTS+DSR	Input test \checkmark , select CTS or DSR as appropriate
		RTS	\checkmark , Key the tone generator or transmitter sidetone <i>Switch the keying input for the transmitter so it is set for a straight key!</i>
Keying	Audio	Audio check box	Off
			Send text Select either Graphical analysis or Automatic



RS232
COM 20 | CTS + DSR | RTS
Test
 Key TRX

[Settings tab / RS232 panel for mouse

Iambic Keyer
 Activate Speed
 Swap paddles
Dot/dash memory
Dot and dash

Click here to keying

Automatic decoding

Keying tab use straight key or mouse buttons / see the image at the bottom

RS232
COM 20 | CTS + DSR | RTS
Test
 Key TRX

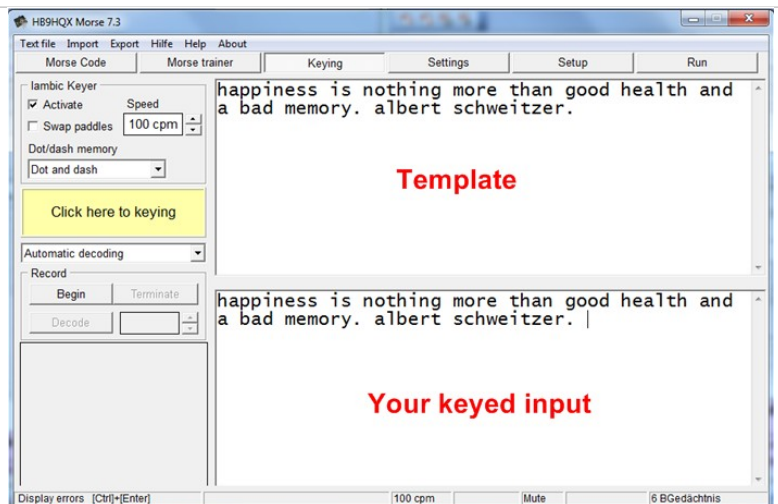
[Settings tab / Interface

Iambic Keyer
 Activate Speed
 Swap paddles 100 cpm
Dot/dash memory
Dot and dash

Click here to keying

Automatic decoding

Keying tab, Iambic Keyer panel, paddle or mouse, see image to the right



Creating Morse Code characters with the mouse buttons

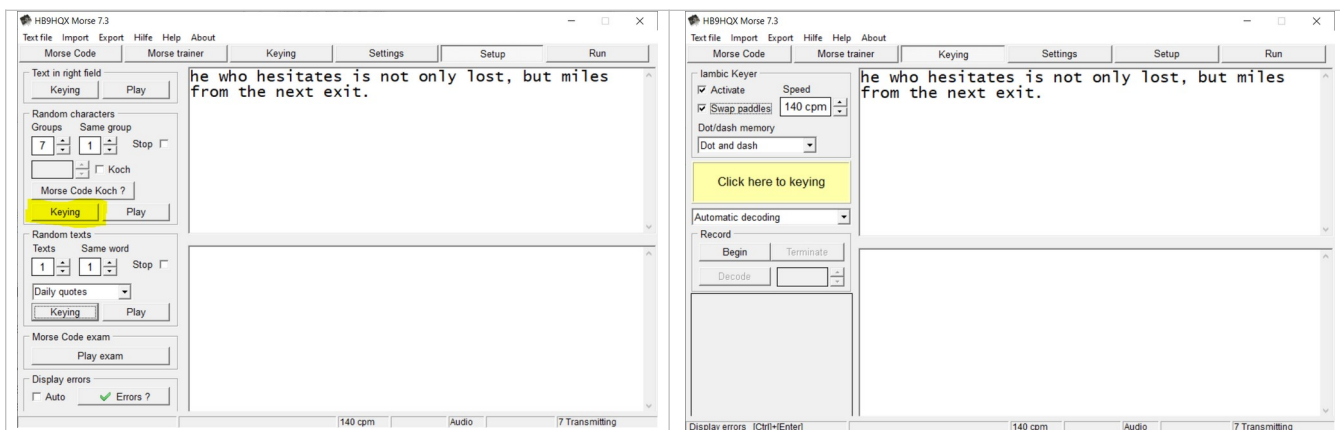
For first attempts, you can use the mouse buttons to send characters; on the Keying tab, simply click on the yellow box labeled "Click here to key".

Using the two microswitches in the mouse, you can also connect a standard straight key or mechanical bug to the PC (see instructions in the HB9HQX Morse 7 Help files)

Generate keying exercises

Tab	Panel	Parameter	Selection
Setup	Random texts	Daily quotes	Daily quotes (or select another file)
		Texts	1 depending on the text or groups
		Same word	1
Keying		Keying button	Press to generate prepared text in the Keying tab
		Decoding dropdown box	Select Automatic decoding

Suggestions and tips for learning Morse Code based on the HB9HQX Morse 7 software



Preparation of text for keying practice

There are various ways to prepare a text. The prepared text appears in the top window, the text you send with the key in the bottom. You generally select Automatic decoding.

To get accurate decoding it's important that you make sure to have adequate pauses between words – and adjust your keying speed accordingly.

Additional tools in the software

In the help files for HB9HQX Morse 7 you can find additional tools that can be useful when learning to send properly, for instance:

- Recording and playback of sending exercises
- Graphical analysis in order to help find the best rhythm when using a straight key (see image below)

Advanced students:

Try to take a word from a sentence in your head and send it smoothly. Look at the word, look away, send the word all in one go. Move to the next word in the sentence, and continue in this way.

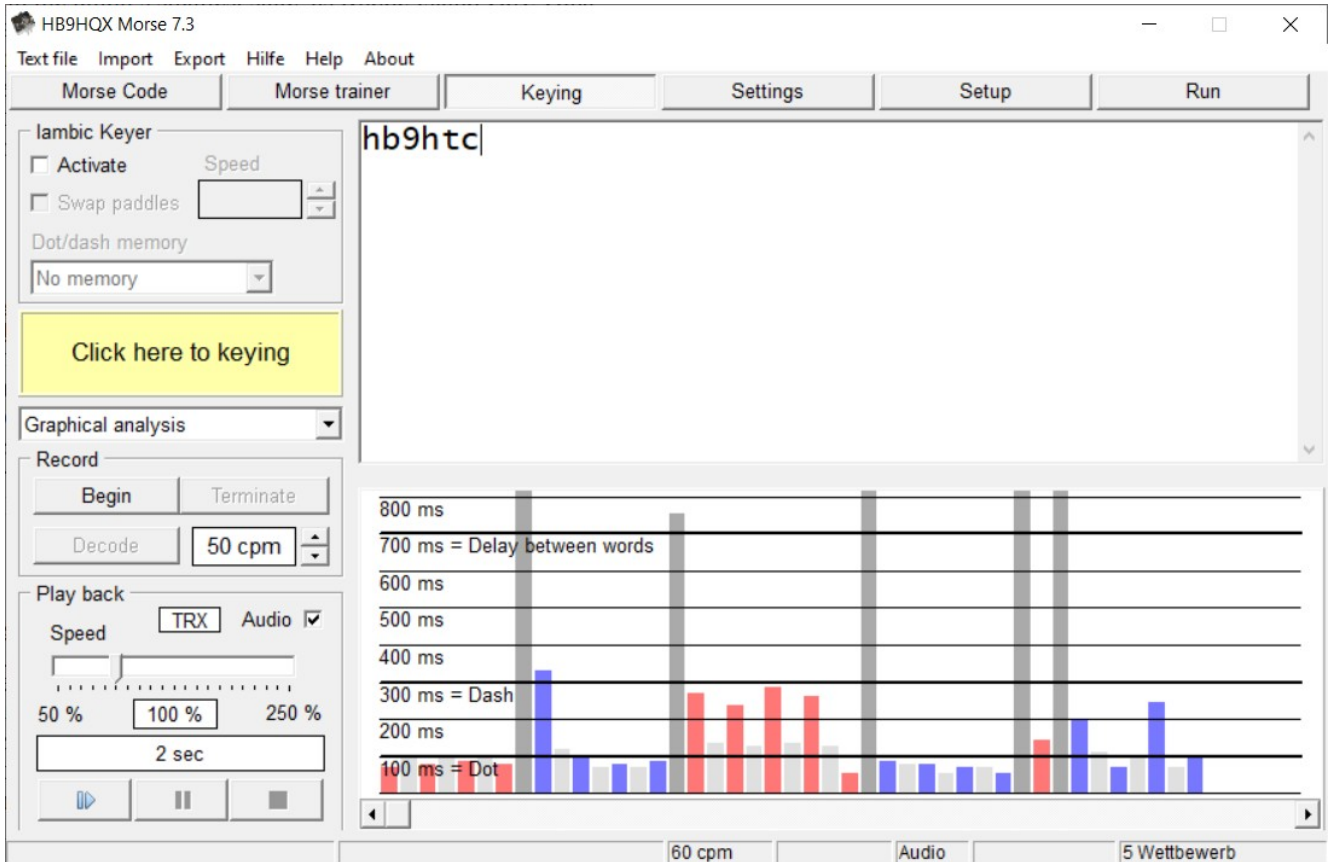
Also every now and then try to send an entire sentence from your head.

When conducting a QSO on the air, you need to be able to respond immediately!

Suggestions and tips for learning Morse Code
based on the HB9HQX Morse 7 software

Graphical analysis

H B 9 H T C



Sent with the mouse buttons

Suggestions and tips for learning Morse Code
based on the HB9HQX Morse 7 software

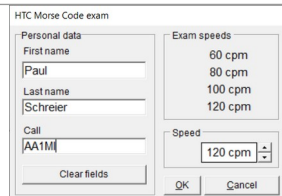
Section 10 - HTC Morse Code exam

Not only is this a way to demonstrate your CW skills (and get an attractive lapel pin to prove it), the HTC Morse Code exam is also a great daily exercise for advanced students. Anyone serious about improving their Morse Code skills should be able to find 4 or 8 minutes each day. The exam text contains everything you might expect: numbers, call signs, QSO texts, plain text passages, groups of 5 random characters. This practice allows you to easily track your progress. The goal here is to bring you to a level of mastery that it becomes easy to use it in real-world situations.

To recognize your progress, we issue lapel pins for the speeds of 80 / 100 / 120 cpm, and you can go even faster if you like.

To earn a pin, it is not necessary to touch-type at the same time – you can also listen and write down the text by hand and subsequently enter it into the lower window, save it and submit the file for our review.

No profile required

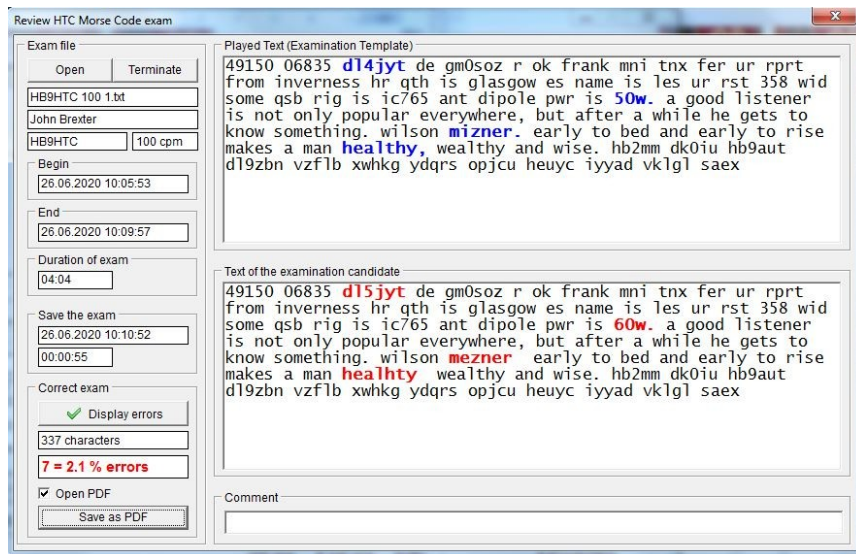
Tab	Panel	Parameter	Selection
Setup	Morse Code exam	Play Exam button	Popup window appears in which you enter exam details:
			
Run		I▶ button	Click OK, and the focus goes to the Run tab Click this button to start the exam
<p>12456 50932 ... Enter text at the keyboard as you hear it, or take your handwritten copy and enter it into the lower window. Make any corrections you like and save the file (file name includes your call sign, speed, serial number for each speed step).</p>			
Run	HTC Morse Code exam		Save: e.g. HB9XXX_120_1

Checking

Tab	Panel	Parameter	Selection
Play	HTC Morse Code exam		File <i>load</i>
		I▶ button	Press to start

Suggestions and tips for learning Morse Code based on the HB9HQP Morse 7 software

Typical exam text



Suggestions and tips for learning Morse Code
based on the HB9HQX Morse 7 software

Section 11 - Creating an MP3 audio file

Using HB9HQX Morse 7 it's possible to transform every practice run you create into an audio file, such as an MP3. This is useful for people who are on the road a great deal because they can listen to any desired practice with an MP3 player as many times as they like whenever convenient.

Example:
Select "Daily quotes" or any other desired practice text

No profile is necessary to save a file

<i>Tab</i>	<i>Panel</i>	<i>Parameter</i>	<i>Selection</i>
Settings	Practice with random texts	Collection	Daily quotes (or another)
		Word spacing	As suits you
	Transmission		100 cpm (or another)
Setup	Character	Farnsworth check box	Off (or select a value)
	Random texts	Texts	1
	Audio	Audio check box	✓
		Same word	1
		Play button	Moves focus to the Run tab
Run		I▶ button	Start practice run, then...
Top Menu	Export	*.mp3	Save the file (Daily quotes or whatever), this takes a moment.

To find the file in its default location, go to the HB9HQX Morse 7 folder, in the .MP3 subfolder.

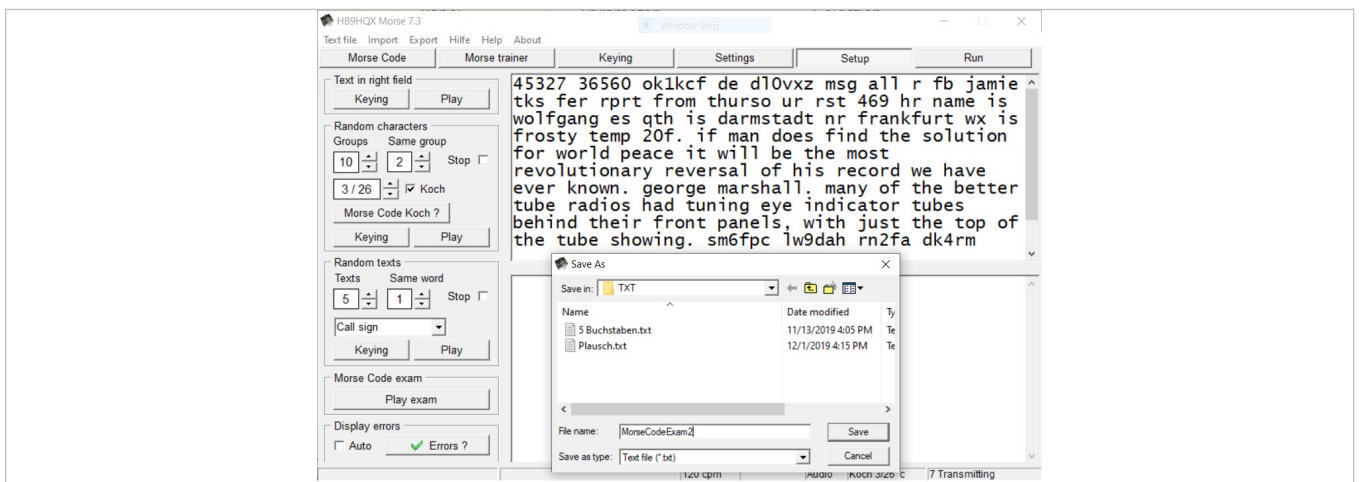
Suggestions and tips for learning Morse Code
based on the HB9HQX Morse 7 software

Section 12 – Listening to Morse Code on the road on your mobile phone using CW Trainer

Many people have a long commute to work and would like to use this time to listen to some Morse Code exercises. For this, we recommend the CW Trainer app from Wolphi LLC (info@wolphi.com). However, we do recommend you follow the following procedures as much as possible. You can take any text files (exercises) you create with HB9HQX Morse 7 and copy/save them to the corresponding folder for CW Trainer, and in that app you adjust settings such as speed, pitch, etc. While on the road, it's often not convenient to write down what you hear for subsequent checking – even though this is very helpful when starting out learning Morse Code. For a change of pace, you can follow along on the screen as characters are sounded out, which is also a good learning aid. Advanced students do not need to write anything down, you must simply select suitable plain text exercises just as you do with memory training as explained in Section 8.

Here an example of how to load a Morse Code exam or another text file into the Morse trainer: select the desired text file and play it back.

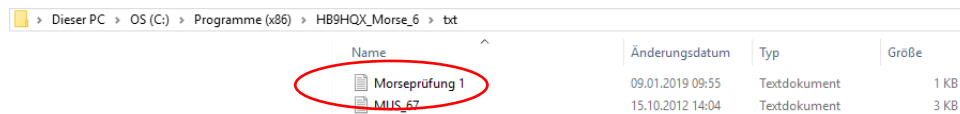
Tab	Panel	Parameter	Selection
Setup	Random texts, or Morse Code exam	Collection	e.g. Daily quotes, Morse Code exam; then play back
	Main menu: Text file		Name the file, then save it.



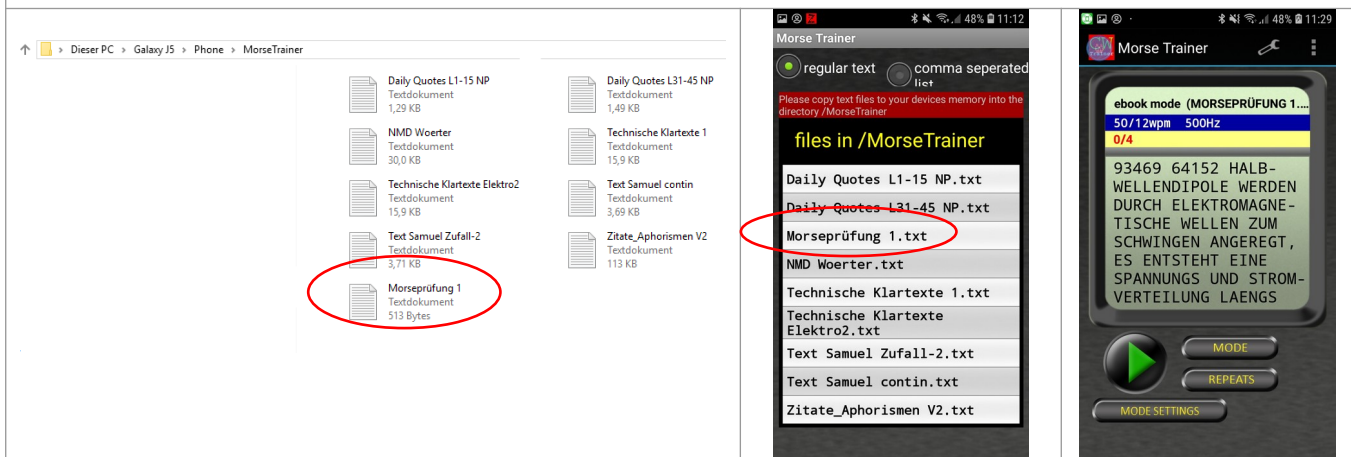
As a default, the file is saved in the program folder for HB9HQX Morse 7 in the "txt" subfolder. If required for data transfer, connect a USB cable, open the File Explorer window for each of the two programs, and copy the created file(s) into the program folder for CW Trainer.

Suggestions and tips for learning Morse Code based on the HB9HQX Morse 7 software

Name and save the file: (e.g. *Morseprüfung 1*)



Then copy it into the program folder for CW Trainer: (*Morseprüfung 1*)



In CW Trainer, for instance, select "ebook" mode, select the text file "Morseprüfung 1" and then you see the screen on the right, whereupon you can immediately start practicing.

Section 13 - Sending Morse Code while on the road

If you would like to practice sending Morse Code while on the road, the PicoKeyer/Ultra PicoKeyer from N0AXS has proven an excellent tool. The small kit is currently being offered by a number of sources at prices near CHF 30 / \$30. The few components can also be assembled by people who have minimal soldering experience. With the device you can send text with a straight key as well as a paddle. There are a number of parameters, but you need set only a few of them: turning the monitor tone on/off as desired, and also selecting between electronic keyer modes A or B (or select Straight Key mode). Practicing sending helps to burn Morse Code characters into your brain and improve your proficiency.



PicoKeyer Plus kit (left) and the new Ultra PicoKeyer Kit, with headphone jack (right)
Battery drain is quite low, and so it needs no on/off switch.

<http://www.hamgadgets.com/ULTRA-PICOKEYER>

In summary, have lots of fun leaning Morse Code – why not start right away? If you have any questions, do not hesitate to contact the Helvetia Telegraphy Club (HB9HTC)

on behalf of HB9HTC, Hugo HB9AFH hb9afh@hb9htc.ch
(translation by Paul AA1MI / HB9DST)

