



Morse Code

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What is Morse Code?

- Morse Code, is a system for representing letters of the alphabet, numerals, and punctuation marks by an arrangement of dots, dashes, and spaces.
- The codes are transmitted as electrical pulses of varied lengths or analogous mechanical or visual signals, such as flashing lights.



A U.S. Navy [signalman](https://en.wikipedia.org/) sends Morse code signals in 2005.

Source: <https://en.wikipedia.org/>

HISOTRY OF MORSE CODE

Samuel F.B. Morse, in full **Samuel Finley Breese Morse**, (born April 27, 1791, Charlestown, Massachusetts, U.S.—died April 2, 1872, New York, New York).

He studied at Yale College and later became a renowned portrait painter and professor at New York University. But the world would remember him for his scientific work on a blockbuster technology of the nineteenth century, telegraph(1832–35). In 1838 he and his friend Alfred Vail developed the Morse Code.

Morse came rather late to the development of telegraphy, although he had always expressed an interest in the science of electricity. First invented in 1774, the telegraph was a bulky and impractical machine that was designed to transmit over twenty-six electrical wires. Morse reduced that unwieldy bundle of wires into a single one.



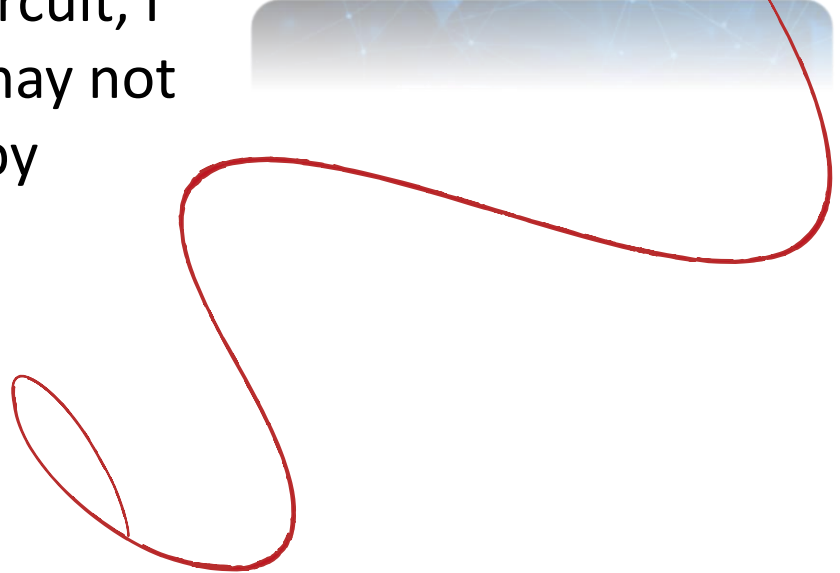
Morse with his recorder.

Photograph taken by Mathew Brady in 1857.

Samuel Morse Quote

“If the presence of electricity can be made visible in any part of the circuit, I see no reason why intelligence may not be transmitted instantaneously by electricity.”

—Samuel Morse





MORSE HISTORY TIMELINE

1838.

Samuel Morse and Alfred Vail demonstrated Morse code.

1844.

Morse demonstrated the telegraph to the United States Congress.

2000.

Most countries had dropped the ability to decipher Morse Code from the requirements for obtaining an amateur radio license.

1851.

Established an international version.



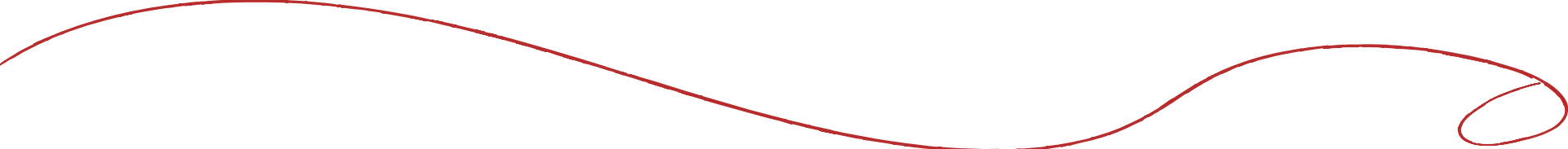
Morse code as an assistive technology

Morse code has been employed as an assistive technology, helping people with a variety of disabilities to communicate.

For example, the Android operating system versions 5.0 and higher allow users to input text using Morse Code as an alternative to a keypad or handwriting recognition.



https://en.wikipedia.org/wiki/Morse_code



Morse's original code was not quite the same as the one in use today as it included pauses as well as dashes and dots. However, a conference in Berlin in 1851 established an international version

More on the website:

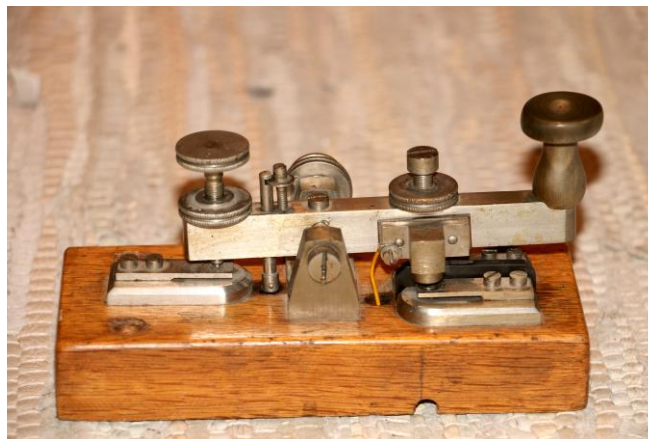
<https://morsecode.world/international/translator.html>



International Morse Code

Letter	Morse
A	.-
B	...-
C	-.-.
D	-. .
E	.
F	..-.
G	--.
H
I	..
J	.---
K	-.-
L	.-..
M	--

Letter	Morse
N	-. .
O	---
P	..--
Q	--.-
R	.- .
S	...
T	-
U	..-
V	...-
W	.-.-
X	-.-.
Y	-.-.
Z	--..



A [Morse key](https://commons.wikimedia.org/w/index.php?curid=61723472) (c. 1900)

By Hp.Baumeler - Own work, CC BY-SA 4.0,

<https://commons.wikimedia.org/w/index.php?curid=61723472>

Digit	Morse
0	-----
1	.----
2	..---
3	...--
4-
5
6	-....
7	--...
8	---..
9	----.

Punctuation Mark

Punctuation Mark	Morse
Error (also <HH>)
& Ampersand	.-...
' Apostrophe	.-...-
@ At sign	.-...-
) Bracket, close (parenthesis)	-.--..
(Bracket, open (parenthesis)	-.--..
: Colon	---...
, Comma	--...-
= Equals sign	-.--..

Punctuation Mark	Morse
! Exclamation mark	-.--..
. Full-stop (period)	.-...-
- Hyphen	-.--..
× Multiplication sign (also x)	-.--..
% Percentage (literally 0/0)	-.--..
+ Plus sign	.-...-
" Quotation marks	.-...-
? Question mark (query)	..--..
/ Slash	-.--..

The rules of Morse Code

Morse code requires the time between dots and dahs, between letters, and between words to be as accurate as possible.

1. A Dot takes - 1 unit of time
2. A Dash takes - 3 units of time
3. The pause between Dots/Dashes - 1 unit of time
4. The pause between letters - 3 units of time
5. The pause between words - 7 units of time.

The most well-known signal sent using Morse Code is:

. . . - - - . . .

and is the distress signal **SOS**. There is no pause of 3 time units between characters, but it is sent as one character **<SOS>**.



Extensions to the international Morse Code

* Prosigns are combinations of two or three letters sent together with no space in between. They are indicated here with the angled brackets.

- [More about the international Morse code at this link.](#)

Prosign *	Morse
<AA> New line	.-.-
<AR> End of message (also +)	.-..
<AS> Wait	.-...
<BK> Break	-...--
<BT> New paragraph (also =)	-...-
<CL> Going off the air ("clear")	-......
<CT> Start copying	-.--
<DO> Change to wabun code	-..---
<KA> Starting signal	-.--
<KN> Invite a specific station to transmit	-...-
<SK> End of transmission (also <VA>)	...--
<SN> Understood (also <VE>)	...-
<SOS> Distress message	...---...



THANKS!



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