

# Convert Text to Morse and Play it



Knowledge is a process of piling up facts; wisdom lies in their simplification.  
Martin H Fischer

### Modification Record

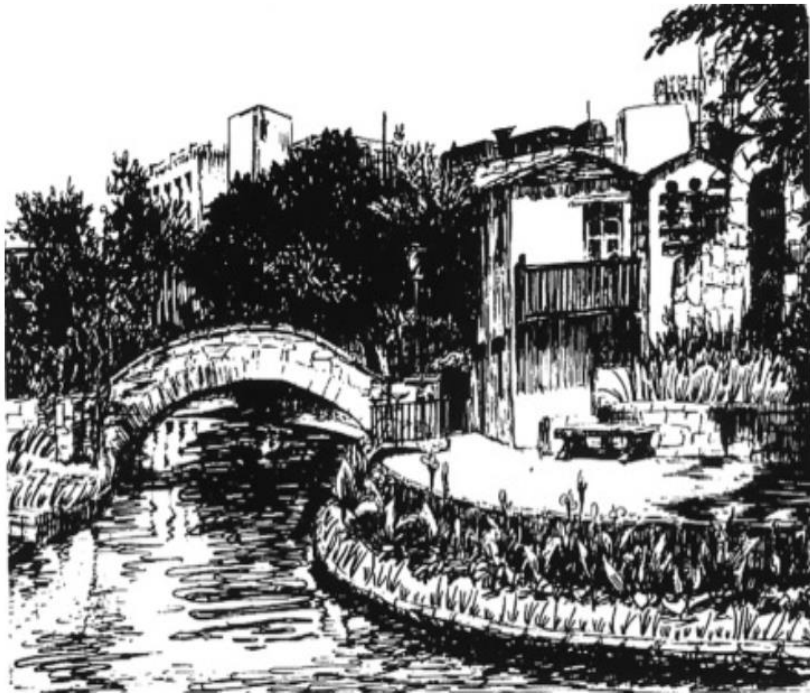
Issue	Date	Author	Changes (Including the change authority)
A	14 June 2021	ZizWiz	Original

## Contents

<b>Modification Record .....</b>	<b>2</b>
<b>1. Introduction.....</b>	<b>4</b>
<b>2. What is Morse .....</b>	<b>4</b>
<b>3. Timings.....</b>	<b>5</b>
<b>4. The App.....</b>	<b>5</b>
<b>5. The code .....</b>	<b>6</b>

## 1. Introduction

Language and characters that it uses and how we put them together fascinates me. I have made converters and IMEs for things like Pinyin, Romaji, Zhuyin, and Braille amongst others. I am also fascinated by Stenography the art of hiding things in plain sight. It was while I was working on my apps for Stenography that I came across an article where morse code was hidden in a picture to obfuscate it from the enemy, I reproduce the picture below.



If you look at the grass along the river; each clump of grass represents a single Morse code character, with the short blades representing a dot and a long blade representing a dash. The complete message says:

Compliments of CPSA MA to our chief Col Harold R Shaw on his visit to San Antonio May 11th 1945

This got me thinking why not create an app to translate from text to morse and back again. Also extend it to play the morse. Waking up early the other morning as I was not able to sleep I sat down while it was still dark and in an hour had the basic app written. It was not as hard as I had thought.

## 2. What is Morse

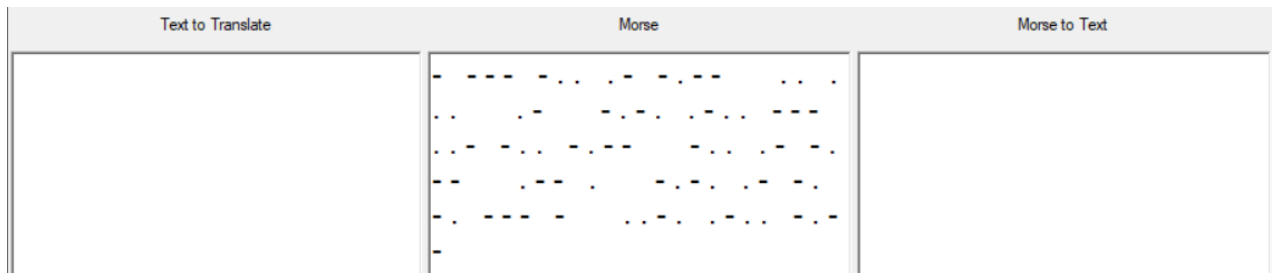
According to Wikipedia: Morse code is a method used in telecommunication to encode text characters as standardized sequences of two different signal durations, called dots and dashes, or dits and dahs. Morse code is named after Samuel Morse, one of the inventors of the telegraph.



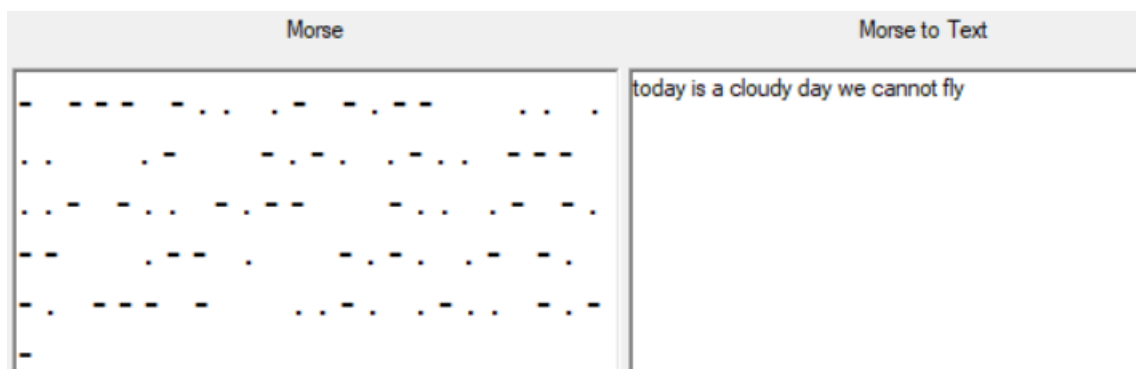
You can now click on “Play Morse” button, and it will play.

If you have written morse and you want to translate it into text, then paste the morse into the morse box. Please do note the earlier notes on timings as this app will only work with these timings. The app could be made to work with any but that is a project for another day.

Here we put in some morse we heard on the air



We click to “Translate to Text” and we see the result



## 5. The code

This you will see is very simple and we put the lookup table in a dictionary so we can use the same data to convert “Text to Morse” and “Morse to Text”.

The sound may not work on all laptops/PCs as it plays the sound of a beep of a specified frequency and duration through the console speaker. The frequency range is 37Hz to 32767Hz. We choose to run at 3kHz.

Note the console speaker is not the loudspeaker you hear your music through which means this will not play through your headphones unless you modify the code.