**Playing Notes Before Transmitting**

Let's say you would like to play the famous introductory notes to Beethoven's Symphony #5. The symphony, and the four-note opening motif in particular, are well known worldwide, with the motif appearing frequently in popular culture from disco to rock & roll, to appearances in film and television.

"V" is the Roman character for the number five. The phrase 'V for Victory' is well-known. And if you know Morse Code, . . . __ stands for 'v.'

Go to Option>Setup MMSSTV and click on the TX tab. There you will enable the tone feature when you click on 'User defined' in the VOX tone box.
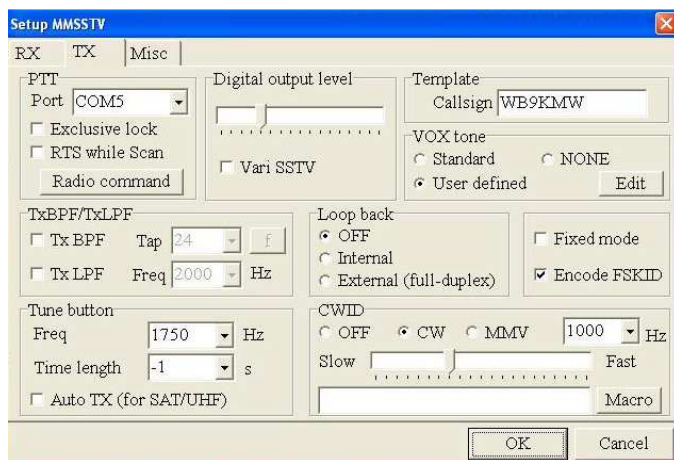
There is a standard, default tone provided by the MMSSTV software. But if you wish to play something like Beethoven's 5th, you would then click on the 'Edit' box and insert the following sequence of numbers.

But what do they mean? Each pair to two numbers represents the frequency to be transmitted in Hertz and the duration of the transmission in milliseconds. So the pair of 392, 200 means a tone of 392 Hz, which represents the note G on the treble clef staff is transmitted for 200 ms.

For a reasonable tempo, I determined that you could use the following rule:

- Eight note = 200 ms.
- Quarter note = 400 ms.
- Half note = 800 ms.

You will notice the next sequence of numbers: 0, 100. This is inserted to provide some space between the toned notes so that things don't just run together. It's like adding a slight bit of space between characters when you are sending Morse code. So we send **no** tone, ie, 0, for 100 ms.

Now to properly code a song sequence, like Beethoven's 5th, you need to find the sheet music and determine the notes, with due awareness of the key signature. If you read music, this will not be a problem. If not, you'll need to do a little more web searching to aid you.


For this example, we play the G eight note three times, followed by an E flat (note key signature) as a half note, ie, 311 Hz for 800 ms.

Next we need an eight rest, with allowance for 100 ms buffer on both sides, hence the 0, 400 entry.

Now we repeat the eight notes with the F note, or 349, 200 with adequate 0, 100 buffering for three times. And I choose to conclude with just a half note for the D note, ie, 294, 800.

Please note that MMSSTV does not handle precise tones, so you must round each note to the nearest whole number. For example, E flat is really 311.13 Hz and I must round to 311.

So you final challenge is to find a table that provides the prerequisite notes you will commonly use for your little SSTV ditty and apply them to the musical scale. Here is a scale that you may use related to the central part of a piano keyboard.
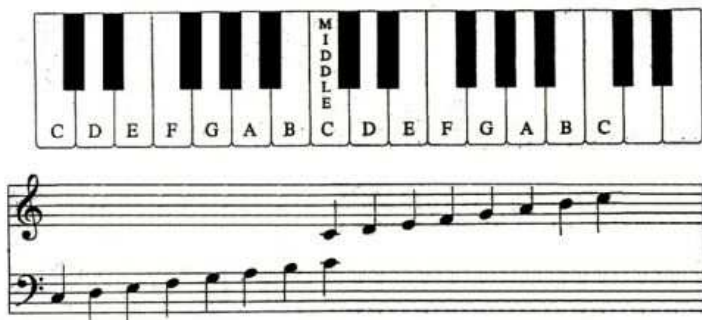
And to save you time, here you go!
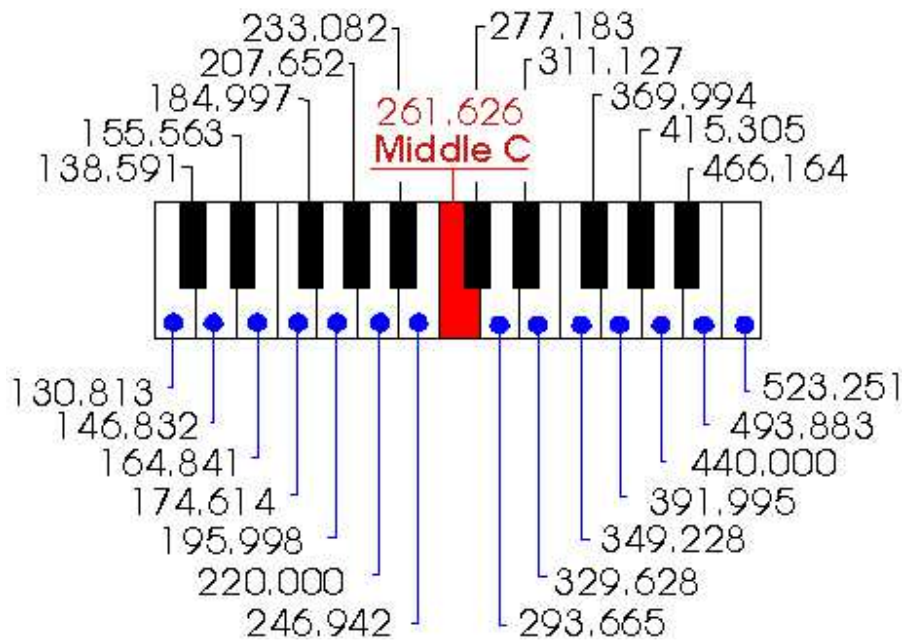
Good luck. Have fun. Any maybe don't overuse this feature too much, as it might become a bit trite when heard all the time on the air!

73,

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