

PRELIMINARY DESCRIPTION OF THE
MUZIX NOTEWRIER
ZX Spectrum 48K

The MUZIX NOTEWRIER has been designed to transcribe a monophonical melody into sheet music. The program can deal with any acceptable sound source if it is amplified to the proper level and connected to the EAR socket of the SPECTRUM. It can also visualize your playing in real time on the screen displaying a note sheet.

Load the tape by typing LOAD"". Do not stop the tape soon after loading is finished, wait until the demo note sheet appears. For demonstration you will find two musical recordings on the cassette soon after the program, a virtuoso synthesizer line and a melody from Bach played on flute. Listen to these, and try to record them into the NOTEWRIER from the cassette!

The menu options are easy to use. SPACE moves the cursor around, and ENTER justifies a command.

PRINT will print the present melody to the screen. In the PRINT mode you find several new options: CONTINUE prints the next page of melody if it did not fit on one page. PLAY plays the melody on the present page. EXIT returns to the menu. COPY copies the page to a SINCLAIR printer. SAVE saves the screen to tape for printing it later.

TRACK lets you monitor your playing in real time on the screen. The notes appear either with sharps or with flats according to the system (see PARAMETERS). The indicator on the right shows the fine tuning value in cents.

TEMPO lets you determine the speed of playing in beats/quarter.

PLAY plays the whole melody continously.

RECORD gives the choice of INSTRUMENT and VOCAL mode. If the melody comes from a source which provides fast and accurately tuned notes then enter INSTRUMENT, if the melody is slower and the pitch stability is not so good, then enter VOCAL. You have a recording time of about one minute. If you make a mistake, S takes you back to the beginning of recording time. See further details for the recording under ADVICES.

COLOURS will change the paper and ink colours according to your wish.

TRANSPOSE will transpose the whole melody a specified number of semitones. If the given transposition is out of the limits of the system, then OUT OF RANGE appears, and there is no change.

PARAMETERS prints all important data of the system to the screen. The OBJECTIVE PARAMETERS are phenomenons of your playing and they cannot be altered. These are:

TUNING INACCURACY given in cents. A cent is 1/100 of a semitone step. This value is given compared to the normal A (A=440 Hz).

INTONATION INACCURACY given in %. This indicates how much the pitches of your playing are spreading from a tempered equal semitone scale, but it can also be an indication of the bad interpretation of your input (see ADVICES).

TIMING INACCURACY will inform you about the fact how strongly the lengths of your notes are spreading from a "metronome-like even" playing.

TONALITY will inform you about the tonality of the melody. In cases when the tonality changes during the melody it might give a different result from your guess, it is rather an "average tonality". You can see it is even able to find the difference between a C major and an A minor melody, although the scale is the same.

The NOTATION PARAMETERS contain information about the way you want to transcribe the melody; you can change these as you wish.

KEY SIGNATURE can be changed to the required number of sharps or flats, although each time you make a new recording or transposition the program will automatically update this to an optimal default. Optimal means here that the number of modification signs are minimal in the melody.

TIME SIGNATURE accepts a nominator value of 2 to 9 and a denominator of 4 or 8.

SHORTEST NOTE will determine whether the shortest note of the melody will be a 1/16, a 1/8, or a 1/4 in the transcription.

STARTING PAUSE can be defined between 0 and 15 if the melody does not start at the beginning of a whole measure.

ADVICES In order to get the best results several circumstances have to be considered. Most important is the sound source and the interpretation. Using a synthesizer or an electric organ excellent interpretation can be achieved, clean whistling or a recorder gives fairly good results; with singing you have to experiment somewhat more, and do not expect too much from a guitar or piano sound. In general, the signal should be as clean as possible. Vibrato, tremolo, trills, flanging, chorusing should be avoided. Play slowly and evenly, and be careful to be monophonic. You can play even eighths triplets if the shortest note is a sixteenth. For synthesizers a steady, single voice organ-like preset has to be chosen. The signal level coming from the HEADPHONE socket of most synthesizers is enough, if the volume is at maximum.

Instruments picked up by a microphone have to be amplified to about 5 volts p-p. Some cassette recorders can do this. If yours can not, still you can try to record a melody to cassette, and then replay it into the SPECTRUM. Any form of lowpass filtering will usually increase the intelligibility.

Volume level is also important. If it is too low then some of the notes might be missing, if it is too high then some random notes appear or some of the notes will be an octave higher.

The lowest acceptable note is the 110 Hz A, but for some versions of the ULA chip in the SPECTRUM it can be about one octave higher.

Check your sound source always with the TRACK facility first, where you get an instant feedback about the results.