The Hybrid Music System
for the BBC Microcomputer

Issue 4

Hybrid Music System – WORKSHEET 0 (Introduction)

Using the computer keyboard

For the most part, you will need to use only a few of the computer's keys.
They are:

    SHIFT (there are two of these, at left & right, and you can use either)
    up, down, left, and right arrows (at the right side)
    RETURN (below the arrows)
    TAB (at the left side)

You use these keys with a light **tapping** action - generally, they are not
to be held down like door bell buttons! Having said that, sometimes you
may want to hold down the arrow keys for a prolonged effect.

The exception to this rule is the SHIFT key. This is used at the same
time as a tapped key - you press and hold SHIFT, tap the other key, then
release SHIFT.

Using the computer screen

The screen displays the material you are working on, and other
information, some of which may be of no interest to you and can be
ignored.

The most important item on the screen is the **cursor** - a flashing white
block or line, or a steady pink bar. It marks the main point at which
your key-presses take effect, and you can move it around using the arrow
keys. If you think of the whole screen as a control panel, the cursor
represents your hand.

Hybrid Music System - <u>WORKSHEET 1</u>

Keyboard playing (using the System as an electronic keyboard instrument)

Start the system by holding down <u>SHIFT</u> and tapping <u>BREAK</u>. After a moment, the 'Main Menu' will appear.

Tap <u>f9</u> (the right-most red key). The disc's menu will appear, with 'Keyboard - general sounds' marked. Tap <u>RETURN</u>, and after a moment, you will be able to play the music keyboard, using the pedal to sustain notes.

To change to another instrument sound, hold <u>SHIFT</u> and move the **cursor** by tapping the arrow keys. Release <u>SHIFT</u> and play music keys to hear the new instrument.

The cursor indicates the item you are changing - at the moment it is on the instrument name. To change a different item, such as 'TRANS' or 'Scale' numbers, first tap the arrow keys to move the cursor to the item, then, as before, hold <u>SHIFT</u> and tap the arrow keys to change it. To hear the result, lift <u>SHIFT</u> and play & listen carefully. It is a good idea to return each number to its original value before moving on to another.

To 'Expand' keys, turn 'Expand' to ON (move to it, hold <u>SHIFT</u> and tap <u>up</u>), and play a short staccato sequence with the sustain pedal held down. Release the pedal and play single keys. Try setting the 'Spread' numbers to between -3 and 3 for stereo effects. Try entering a chord rather than a sequence.

To call-up a different set of 50 instrument sounds (mostly sound effects), tap the following keys:

   <u>TAB</u>, <u>f9</u>, <u>down</u> (to 'Special sounds'), <u>RETURN</u>

Try changing instrument as before.

Altering instruments (making altered or completely new instrument sounds)

Tap <u>TAB</u>, <u>f9</u>, <u>RETURN</u> to re-start the keyboard, and then tap <u>SPACE</u> to call-up the 'Simpleins' for alteration. You use <u>SHIFT</u> and arrow keys to change the word at the cursor, just as previously you changed the instrument. Use the arrow keys without <u>SHIFT</u> to move the cursor between the three words - they describe timbre, pitch shape and loudness shape respectively.

When you have finished experimenting with the 'Simpleins', tap <u>SPACE</u> to return to the main keyboard screen (your new instrument is added to the list with the name 'newword'). Try selecting and changing a more complicated instrument, such as 'Upright' or 'Ringsyn' - you will find that they contain numbers and ON/OFF controls as well as words.

Hybrid Music System - WORKSHEET 2

Mixing (adjusting the overall sound of a piece as it plays)

Start the system by holding down SHIFT and tapping BREAK. After a moment, the 'Main Menu' will appear.

Move down to 'Mixing Desk' and tap RETURN.

Now load an existing piece of music to work with: tap f9, move down to 'Notes' or 'manor' and tap RETURN. When the music begins, tap TAB to bring up the full display. You should see how the flashing indicators follow the notes of the music.

Tap g (to make the voices respond in groups) and use the arrow keys while holding SHIFT, to change volume and stereo position. Use left and right (without SHIFT) to move to another voice, and do the same.

To restart the piece, tap r, and to pause/continue, tap SPACE.

To change an instrument, move to its name using up, and press and hold SHIFT. Just as before, while holding SHIFT, use arrow keys to select another instrument, releasing SHIFT to hear the effect.

You can also change 'tempo' or 'tune' (at the top left of the screen) - move up to it and use SHIFT arrows as before.

Note that all controls return to their original settings when you tap 'r' - to retain your own settings, tap

  TAB f0 MAKE TAB

before tapping 'r'.

Simple recording (recording a tune played at the keyboard)

Start the system by holding down SHIFT and tapping BREAK. After a moment, the 'Main Menu' will appear.

Move down to 'Recorder' and tap RETURN, and when the 'Recorder' screen appears, tap TAB.

Tap RETURN to practice on the keyboard, and SPACE to finish.

To record, move down to 'Record', tap RETURN, and start playing after the two bar count-in, that is, on the third high 'pip'.

To replay, move down to 'Play original' and tap RETURN. To replay in more rigid time, move down to 'Play final' and tap RETURN. Tap SPACE to finish.

Staff editing (entering and changing music on the staff)

Start the system by holding down <u>SHIFT</u> and tapping <u>BREAK</u>. After a moment, the 'Main Menu' will appear.

First select an instrument by moving <u>down</u> to 'Keyboard', tapping <u>RETURN</u>, and tapping <u>TAB</u>. Use <u>SHIFT</u> and arrow keys to select a conventional instrument such as 'Upright' or 'Vibglock'.

Now move to the Staff Editor by:

    <u>TAB</u> <u>f0 MAIN</u>   (to get to the Main Menu)
    <u>down</u> to 'Staff Editor', <u>RETURN</u>

When the musical staff appears, tap <u>TAB</u> to go up to it.

As you tap single keys on the music keyboard, the notes will appear.
Try entering a simple tune, for example 'Ode to Joy':
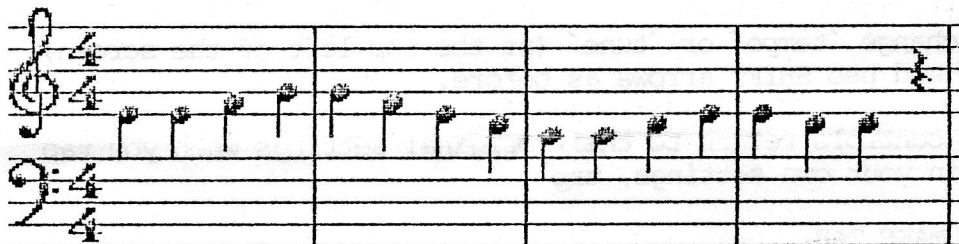
(You can leave out the clef and bar lines at your first attempt.)

Use <u>DELETE</u> to remove any wrong note you just put in, and at the end of the tune, tap <u>e</u> to add the end line. Tap <u>f1 play</u> to hear the tune.

You can use <u>left</u> and <u>right</u> to move along the staff, and <u>SHIFT</u> arrows to change the pitch and duration of the note under the cursor (not necessarily the last one entered). If you want to enter spaces, clef and bar lines, use the <u>SPACE</u>, <u>c</u> and <u>|</u> keys respectively, either as you enter the notes initially, or afterwards by first positioning the cursor for each one.

Multi-track recording (recording a piece one part at a time)

Start the system by holding down SHIFT and tapping BREAK. After a moment, the 'Main Menu' will appear.

Tap f9 to call-up the disc's menu. Move down to 'Recorder - advanced mix', and then tap RETURN. (If using a Model B, use 'basic mix' instead).

When the Recorder screen appears, move down to 'Player:', and set the number to '1' (hold SHIFT and tap up). You can now record a melody on player 1, just as you did in simple recording: move to 'Record', tap RETURN and start playing on the third high 'pip'.

When you are happy with part 1, you must tap

   TAB f3 MAKE TAB

to store it before continuing. Now change 'Player:' to '2' and record & store part 2 in the same way. This excercise allows you to add a part 3, and percussion on parts 4 & 5. To change the instruments, volumes etc., you use the 'Mixing Desk':

   TAB, f0 MAIN, down to Mixing Desk, RETURN, TAB, r

Don't forget to store your new mix with TAB f3 MAKE TAB. To return to the Recorder:

   TAB, f0 MAIN, down to Recorder, RETURN, TAB

Part 6 allows you to record three-note chords, provided you first increase the Recorder's 'Voices:' number to 3 (move to it, hold SHIFT and tap up).

Different voice arrangements

The example mix you have been using has the eight available voices arranged one on each of parts 1 to 5, and three on part 6. If you want a different arrangement of voices for your piece, you use the Mixing Desk to remove voices from, and add voices to, the existing parts.

First tap g so that all voices on a part are controlled as a group. Now, to remove all voices from a part, move to any one of its voices, and enter:

   TAB UNUSED RETURN TAB

To increase the number of voices on a part, move to any one of its voices, and enter, for example:

   TAB 3 VOICES RETURN TAB SHIFT

(The final tap of SHIFT simply re-selects the instrument, to put it on the new voices.) Don't forget to store your new mix with TAB f3 MAKE TAB.