Sweet Sixteen Tutorial

Lets take an opportunity of putting some of the editing features found in Sweet Sixteen into practise.
If you look in the directory of Sweet Sixteen, you will find a file called TUTOR.SNG. Load this into the sequencer and take a listen. You will obviously hear lots of things wrong such as the Piano part too loud, wrong notes in the Brass section, wrong and mis-timed notes in the Bass section, general instrument balance wrongly set etc.

The Tempo
The first thing you will notice is that the whole piece slows down at bar 25 to 28 to allow a nice steady speed to play the string section arpeggio. Playing the music slowly at this point makes it easier to play a fast run than at normal speed. To put things right, click on the EDIT drop-down menu where you can choose Tempo Track Editor.
Here you will see that the initial speed of the song is 134 bpm but at bar 25 it drops to 85 bpm to slow the playback speed down. At bar 28 it returns to its normal speed. To put matters right simply highlight bar 25 and click Delete to remove the tempo change. If you wish you can also delete the tempo return at bar 28. Try inserting different tempos at different places to see how easy it is to adjust the speed of the song.

Before we do any editing it is best to make the song start at the first beat of a bar. After the drum intro, one of the first sounds you hear is a brass Stab. Looking in the EVENT EDITOR you will see that the position of this is   2. 4. 3. 1. To make this start at 3. 1. 1. 1. the whole track should be moved   0.   0. 2. 0. forward. To do this, highlight the brass track, from the FUNCTIONS MENU choose Push Track. From the Pop-Up menu you will see that you can push or move the track either Forwards or Backwards. Also by an amount chosen from the other box. So, choose FORWARDS and set the amount to 0. 0. 2. 0. Click on OK and if you then view the track in the event editor, you will see that it now starts at bar 3. 1. 1. 1.

This now only applies to the BRASS part. To ensure that the piece plays correctly you will have to push ALL THE REMAINING TRACKS BY THE SAME AMOUNT.

The Bass Part
The bass part is an octave too high. This can be put right in either of two ways.

1. Modify Track
Highlight the Bass track and from the FUNCTIONS Menu, select Modify Track. Choose Transpose and set the value to -12 and click the OFF to ON. Then click OK. The whole of the bass part is now transposed by 12 semi-tones or 1 octave lower.

2. Freeze Parameters
Highlight the Bass track and under TRSP in the main window, use the mouse button to scroll the value down to -12. At this point you will only HEAR the changes, and no changes will be made to the actual sequence. If you now select the EXTRA menu and click on Freeze Track Parameters or press [Shift] F, then the changes are made permanently but can be undone using the UNDO icon.

Even though there are some wrong notes in the bass part we will leave this for now and come back to it later in the lesson.

The String Part
You will notice that the strings sit quite low in the mix and some notes are louder than others. This is an exaggerated effect of a velocity sensitive keyboard. A useful feature of Sweet Sixteen is that it can average out these differences. In the main screen you will see the word COMP. This means compression. It can have a value from 1-4. If you set it to 4 then all the notes are changed to a velocity very close to 64. Values 1,2,3 move the loudest and softest notes towards this value by varying degrees. A value of 1

moves them the least, value 2 moves them a little bit more and so on up to 4.
In this case, if we give the strings a COMP value of 3 and a general velocity increase (under VEL) of +25 then you will hear the result of the string section being evened out. To make these changes permanent then either click Freeze Track Parameters as before or [SHIFT] F.

The Piano Part

This sounds too loud so again under VEL with the piano part highlighted, scroll to a value of -14.
And press [SHIFT] F. With all velocity changes you also have the choice to go into the MODIFY screen and change them in the VELOCITY box not forgetting to turn the OFF to ON to activate the function.

The Bass Part

The general velocity values of the bass notes (already transposed) are still a little low so by either the Modify Track function OR Freeze parameters function, add +40 to the velocity of the bass notes.

General Note

In all these velocity changes the final result will totally depend on the sound source you are using so the values indicated here are only a general guide. It may turn out that they will want changing again, either louder or softer to suit your particular sound source. Experiment a little until you get what you feel is the right balance.

The Drum Part

Again the drums sit too low in the mix so to start with, add +37 to the velocity values. You will notice that there are a lot of Handclaps in the track. You may feel that these should be changed to say a Snare Drum. Changing drums is quite easy and there is no need to re-record with new drum sounds. Here is how to do it:

1.   Highlight the drum track and from the FUNCTIONS menu choose Transform events

2.   Set-up the screen as follows:

A.   EVENTS   =   NOTE
        Meaning only process notes

B.   CHAN   Upper =10   Lower = 10
        Meaning   Channel 10 to 10 or ONLY CHANNEL 10

C.   -1-   Upper = D#2   Lower = D#2
        Meaning   only the note of D#2.

D.   -2-   Upper = 1   Lower =127
        Meaning all the D#2's with velocity values of anything between 1 and 127.

E.   In the process result box under -1- change the + to - and in the box next to it scroll up to '1'
Meaning that the chosen note (D#2) on the chosen track (10) will be transposed 1 semi-tone to D2.
Note: D2 is the Snare drum sound.

F.   Now look at the LOCATORS panel. If it is set to OFF then the **whole** track will be processed. If switched to PART TRANSFORM then it will only process the track between the two pre-set locator values.

G.   If you know that there will be other processes to do then click DO IT and then set up the next process. If this is the only change you want to make as in this case, then just click   OK.

H.	Listen to the track again and notice that all the Handclaps have now become Snare Drums. If you want the snare drums to be louder or softer then re-enter the Transform Events screen, set up as before but this time leave the box under -1- blank but either add or subtract a value under box -2-.

More Drum Processing
If you click GRID you enter the grid edit screen. Start the sequence and using the Left/Right arrow keys scroll the view until you see the drum notes being displayed. You will see that the drum notes are of differing lengths. The drum sounds will play whatever the length of the note is whether it is a length of 1 or 127. To conserve memory on your synth, you can safely change all the drum notes to a very short value say between 10 and 20 Ticks. To do this, From the EXTRA menu choose CHANGE NOTE LENGTH, [SHIFT] L. Here you can select FIXED LENGTH and a value of say   0 0 0 15. Click on OK and all the drum notes now have a fixed length of 15 Ticks.
At this point the track should now be sounding more or less OK but there are some wrong notes in the Bass part.

More Bass Part Editing
To edit these wrong notes, simply highlight the Bass part, open the grid edit screen and start the sequence. The bass notes should now come into view on the left of the screen. Use the arrow keys to centre the display. Stop the sequence and return to the start then using the UP/DOWN Arrow keys scroll down the bass notes individually. You will see there are very short notes at positions:

4. 1. 1.   1.
5. 3. 4. 33.
6. 3. 1.   1.
7. 3.   3. 1.
11. 4. 3. 17.
12. 3. 1. 17.

As you scroll down the track, these notes become highlighted in turn and as each wrong note becomes highlighted then click the delete key and they are Gone.
Replay the track and if you listen carefully you will hear something wrong with the bass note timing in bars 11 and 12. Looking closely you will see that the note of D2 at 11. 4. 4. 1. is little late and should be at 11. 4. 3. 1. To put matters right make sure the SNAP icon is active, Left click this note and drag it upwards by one division of the bar. This will then move this note to its new, correct position. Do exactly the same for the note of E2 at position 12. 3. 2. 1. And move it to 12.   3.   1.   1. The Bass part should now be Ok but take a close look at the brass part at bar 26.

Brass Part
You will see there is a wrong note of C#4 at position 26.   4.   3.   1. So highlight it either by scrolling down with the arrow keys, or, pointing and clicking the mouse, and delete it.
Also the note of D4, F4, A4, and C5 all at 26.   4.   3.   1.   Should be moved to 27.   1.   1.   1.
Do this by again making sure the SNAP icon is activated and left Click and Drag the note(s) to their new position.

By now the whole song will have been tidied up and sounding OK. Dont forget I mentioned that the velocities of notes on the different tracks may need final adjusting to suit your sound module or synth so trust your ears until you get it sounding right.