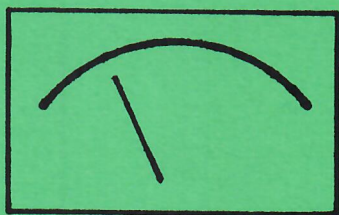
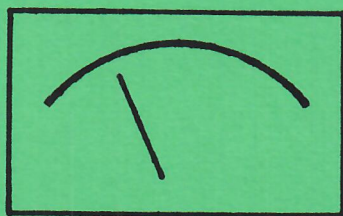
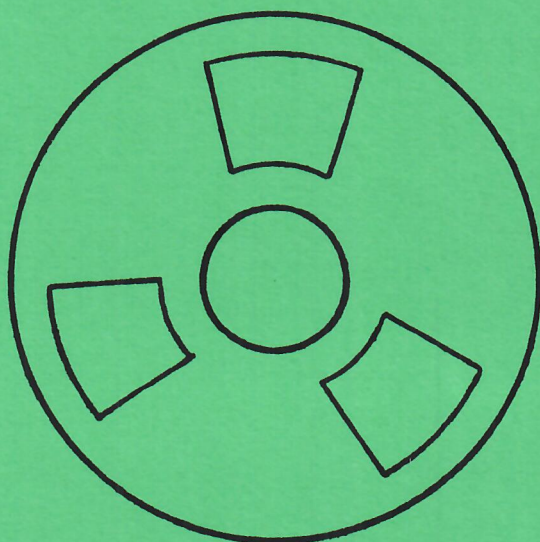


GREENGATE
p r o d u c t i o n s

DS:3



APPLICATIONS GUIDE

GREENGATE

DS:3

DIGITAL SOUND SAMPLING SEQUENCER

APPLICATIONS GUIDE

APPLE II PLUS, APPLE IIe

PROGRAMS BY:

GREENGATE PRODUCTIONS

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GREENGATE PRODUCTIONS

24 MISSDEN DRIVE

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This program uses a high-speed operating system called Diversi-DOS(tm), which is licensed for use with this program only. To legally use Diversi-DOS with other programs, you may send \$30 directly to: DSR, Inc., 5848 Crampton Ct., Rockford, IL 61111. You will receive a Diversi-DOS utility disk with documentation.

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This is just the start there is more to follow.

HOW TO USE THIS GUIDE

This guide is what it says it is, a guide. There are no rules as such for using the DS3 in the studio or in the home. It is up to you. However, This book has been written to give clear information on how to go about various tasks and how we have tackled them in the studio.

The most important of these is how to synch things up together as this seems to have been the most asked question about the DS3. So, we have set aside a complete chapter to explain as well as we can how to go about such a task.

If you come across new methods of using the DS3 and want to pass them on to other DS3 users then please write to:

APPLICATIONS UPDATE
GREENGATE PRODUCTIONS
24 MISSDEN DRIVE
HEMEL HEMPSTEAD
HERTS

We hope that you get as much out of using the DS3 as we did working long into the nights with the prototypes in our own and in various studios up and down the country. And we would like to thank everyone for suggestions which helped to make the DS3 a more usable machine.

APPLICATIONS GUIDE

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CHAPTER 1

THAT SYNCHING FEELING

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HOW TO USE THE SYNCH OPTION

The DS3 has an interesting and quite comprehensive sequencer, but what use is a sequencer, no matter how good, interesting or usable, if it cannot be run in synch with anything. In designing the DS3 we wanted a basic synch option as a necessity. To be truthful, if you have already worked through the user's guide then you have already come across it.

By switching on the metronome you get an audible click through the internal speaker which is located inside the APPLE. You know that you have to play on one of these clicks (or "events" as we preferred to call them.) This is the basis of the DS3's simple, but effective, synchronising feature. So, by turning on the metronome, you switch on the synchroniser.

SYNCHING TO TAPE

The first method of synchronising is the basic method and this is to synchronise to and from a multi track tape which allows you, even though the DS3 can only play four notes at any one time, to build up a much thicker sound by putting layers of four channel sound down onto tape separately. This can widen the use of the DS3 in the studio to be a much more exciting instrument. To do this you need to be in the play/sequence mode.

To get a synch pulse to tape you have to take a line from the back of the APPLES cassette out port. Hang on a sec, its not as hard as it sounds. If you go round to the back of the APPLE and look in the left hand corner you will see that there is the lead which goes from your APPLE into your monitor.

The small 3.5 mm jack beside it is the one you want. On old APPLES this is marked OUT and on the new ones there is a small picture of a cassette with an arrow pointing to the cassette. Take a line from here and put it into a line on your mixing desk. IF YOU HAVE A DESK WITH PHANTOM POWERING TURN IT OFF AS 48 VOLTS DOWN A DS3 TENDS TO BLOW IT UP. Now turn on the metronome. Get a level from the click track on the desk. O.K. now your ready to synch things up.

You should be able to play your sequence and put the synch track down at the same time. PUT THE SYNCH TRACK DOWN AT A VERY LOW LEVEL: NO MORE THAN -10Db And keep it as far from the actual pattern track as possible, especially if you are putting down percussion tracks first. You may find that adding a count on the hi-hat before the introduction starts a help as the order for doing things when recording is as follows:

- 1) Start metronome. click will go to tape.
- 2) Start sequence. Sequence goes to tape.
- 3) Sequence plays to end.
- 4) Stop metronome.

You should now have a complete sequence and a complete synch track recorded to tape. Load up all sequences, for the second run. Remember to switch the tape recorder in to synch as well otherwise it will drift out as would anyone playing out of synch in record mode. Take the cable that was used for laying down the synch track and put it into the other hole on the back of the APPLE (The one

labeled IN on the APPLE II+ and with a picture of a cassette with the arrow pointing to the hole on the IIe.) Now run the line out from the track with the synch track on it. To get the computer into external synch Go to the area where you are asked about TEMPO and instead of entering a number enter the letter E for external control. Switch in that mode and try it out. Follow these instructions:

- 1) Start tape from the top.
- 2) Listen for the count.
- 3) Start the new sequence at the start of the track. The machine will stay in synch until the end of the track.
- 4) Stop sequencer using the <ESC> key at the end of the track. (as soon as the click track ends the computer will stop playing anyway.

If the computer does go out of synch Try one of these:

- 1) Sequence not triggering:
 - a) If the cursor in the top right is not firing then the level coming back from is too low. Adjust the output level and try again.

- b) If the cursor is flashing then you have not started the sequencer.

NOTE: the cursor will only flash if the pulse is coming back from tape. If the tape stops then so will the cursor.

- 2) Sequencer playing too fast over short periods.

This is the other common problem and this is due to the level coming back too high. Adjust the level and try again.

We have found when coming back from tape you may have to eq the click so that it is more bassy than topky. Then computer only needs the short click to step once through the sequencer. But once you have set the levels up it will work faithfully. Its just up to you to set up your machine for your equipment.

SYNCHING TO DRUM MACHINES

To synch a bass line on the DS3 to a drum machine, you have to get the drum machine to produce a click. If you have written the bass part so that it is playing 16ths then get your drum machine to produce sixteenths and switch the DS3 to external and set it up as described in the last section. In this case it may be better to use your drum machines synchronizing to tape and drive everything off of your drum machine.

If your drum machine does not have a click track then record a pattern on your drum machine which

plays 16ths on the closed hi-hat for the length of the pattern and then run the drum machines hi-hat through a gate so that all it produces is a click. When eq'd this click will be sufficient to drive the DS3.

USING THE DS3 TO REPLACE RECORDED PARTS

If you have a well recorded, well played drum part on a multi track tape and have a naff sounding bass drum or snare drum on the tape you can use the DS3 to store a better sound and let the particular part you wish to replace trigger the sound by using a gate to produce a click which will drive the DS3 whenever it occurs. Again, set up the eq to get the best result.

The secret is to record a sequence called DRIVER which is a one event, repeating sequence which looks like this:

1: 1 - - -

2:

SEQUENCE REPEATS

This will then fire SOUND# 1 every time a click comes into the DS3. Remember that it doesn't necessarily have to be a normal sound to replace the, for example, snare. Go on! surprise the cynical drummer by replacing that naff snare drum with the sound of breaking glass. Their live set will never be the same again.

NOTE: There is no delay and as soon as the click is heard the DS3 fires.

USING THE DS3 TO DRIVE A STEP TIME SEQUENCER

On DATA DISK 1 is a sound called SPIKE this sound can be used to record a sequence which will drive a sequencer. This sound can be useful if you want to use a synth bass sound which will follow the bass drum part by simply loading SPIKE into the sound # previously occupied by the bass drum and then sending SPIKE through the desk and into the sequencer.

NOTE: If you use the waveform edit program to draw a sound like SPIKE but with three peaks and you use it to drive a polyphonic arpeggiator such as the one which comes with the JUNO 60 by having a medium amount of decay and release on a sound it will sound like the JUNO is playing chords.

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THE START

These are a collection of the best suggestions so far as to other uses of the DS3 and how to go about getting there. They are all clearly labeled under what the function is and the text which follows explains each in as much detail as required.

COMBINING SOUNDS

The only way you can combine sounds on the ds3 at present is to record both sounds on to a multi-track tape recorder and then sample both into the memory of the computer at the same time.

PITCHING UNPITCHABLE SOUNDS

If you want to get the sound of something which is a great sound but does not produce an A then record it to a tape recorder and varispeed it down to the correct pitch (if it won't go to the correct pitch then get it to a correct whole pitch (an E instead of an A for example) and transpose the part). With the keyboard splitting software you will be able to reassign the pitch on the keyboard. In general make sure that it is in tune to any correct note on a reliable instrument. Use the bands main synth/organ/ electric piano on standard pitch.

Note: If you varispeed a sequence make sure the parts in tune. If they are when you speed the tape up again all will be in tune.

SOUND EFFECTS

You can use the DS3 to store short sound fx and play them at a touch of a button this can be very useful for dropping in things like closing doors, footsteps etc. into precisely the right place on a film soundtrack.

SPECIAL EFFECTS

You can get very interesting effects using the different channels of the DS3 in different ways. You can, when the AUDIO BOX is in MONO mode, take out the four channels and run different treatments on all of the channels separately. This can produce some interesting effects when recording to tape. And can allow for even more interesting sounds in a live show.

If the AUDIO BOX is in 4 CHN mode then by panning the channels hard left and right or by different panning methods you can get quite interesting STEREO effects.

PERFORMING WITH THE DS3

In performance you can use a performance file with songs which have no sequences in. The computer will then load sound setups which allow you to play the different sounds for different songs during the course of a gig.