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V O L U M E   8

(C) 1988

V O L U M E   8   I N D E X

11 Percussive	12 Frozen Air	13 Rubies	14 La Paz	15 Hybrid	16 "Service!"	17 Perculator	18 Spot
21 Vegematic	22 Vibrachiff	23 Roto Rooter	24 Syncro Mesh	25 Irene	26 "...Wham!"	27 White Fence	28 Laundry
31 Sister Moon	32 Breath	33 NightVision	34 Fragile	35 Tides	36 Timbre	37 Liquid	38 Auditorium
41 Ear Muffs	42 Mona Lisa	43 Reindeer	44 MacchuPiccu	45 Squeak	46 "...splat!"	47 ManyDetails	48 Greek Ships
51 Empty Rotor	52 SteveMiller	53 Angel Rotor	54 Vox	55 Mrs.Minerva	56 "Blind..!"	57 New Math	58 D'dgeridu
61 SomeJourney	62 Resonant	63 Her Wrist	64 Night Bloom	65 Orchids	66 Venus	67 Phases	68 Mr.Delvaux
71 MatrixBrass	72 Secrets	73 ArpeggFlute	74 Tube Amplf.	75 Roto Shriek	76 Calypso	77 Africa	78 RotoStrings
81 New Celeste	82 Vega	83 Chorus	84 Prof. Fabre	85 Pseudonym	86 Garage	87 Cyclamen	88 Cameo

NOTES

Sound #86 is designed to be played through a digital reverb at such a
hot level that an overdriven, distortion results. This should give
you an extremely convincing over-driven guitar sound. On the MicroVerb
use the small programs # 2,3 or 4. On the Korg DRV series, use the
Garage program with a 1.2 second decay time. On any other unit, pick a
small room, either dull or bright, with a little over 1 second of decay
time. This is open to choice. However, you must get the signal
hot enough. Start at maximum input to the unit and back off until you
find the best location. I use it nearly full strength. Just turn your
amp down first!

In COMBINATION WITH THE TX 81 Z

Volume 8 for the DW 8000 was produced simultaneously with Volume 2 for
the TX 81 Z module (also good for DX 11). Many of these sounds can
be used together to form layers quite effectively. Almost any comb-
ination will work, but especially useful are sounds 81-85 layered
with any of the clav, guitar, or piano like sounds on the TX; 66 or
67 layered with any of the"pad"or performance "pad" sounds such as
Fresh*Sky, Wisteria*, Over Troy, Night Vision, etc. Any of the
DW pad sounds (31-38) work well Old Trucks, Screen Door, etc. I par-
ticularly like Angel Rotor (DW # 53)with Old Trucks or Screen Door.
If the DW component is kept low, it reminds me a lot of the setting
in the Tina Turner arrangement of Private Dancer.

I use DW #33 as a background pad to almost everything, especially
with Andean Pan. DW #11 and #12 also work well with most sounds. I
used DW #12 as the only DW sound (except the organ) on the TX demo
tape for Volume 1, which gives you an idea of how flexible these
sounds are and how well they compliment FM sounds.

DEMO TAPES

A demo cassette should be available around May 1st, 1988. It's
main purpose is to demonstrate the above and to suggest possible uses
for many sounds. The creator of a sound always knows what he has
in mind, but to others, the sounds may not reveal their most
useful function at first. The demo tape is available to owners
of Volume 8 or TX volume 2 for $1.00

CORRECTION TO NEWSLETTER #5

Geoff Waddington cannot provide copies of his sequencer program
since he no longer owns an ST. The program is available on nearly
every MIDI bulletin Board in North America and Europe. If you can't
find a copy, give me a call.

- PROGRAMMING TECHNIQUES -

OVERVIEW

Volume 8 draws upon several programming techniques which I
have developed for the DW 8000 over the last few years. I will
discuss each of these techniques and show you how they are used
in specific sounds as well as the way they interact.

The text examples showing parameter values are printed using
Synergy Resources' SYNTHVIEW-8000 Program for the Atari ST.

Since the following information will only be of use to you if
you intend to create sounds on the DW 8000 I must assume a fair
knowledge of the DW 8000 and it's parameters. If you are not cer-
tain of these parameters and their functions you must first read
my programming manual for the DW 8000 included with every mem-
bership package. If you find some of this material to be over
your head, don't despair. You will find it more useful at some
point in the future when you are at a more advanced stage in
programming.

These techniques include a special use of the AutoBend feature,
an unorthodox setting of the VCF EG parameters and several DDL
settings. In many cases these tricks are used together and de-
pend upon a certain interaction.

If you think I'm giving you some formulas which allow you to
automatically create great sounds, you're mistaken! Even though I
can tell you everything that you need to know, you will find that
creating good sounds is a matter of some effort and requires musical
insight and many patient hours with a clear head. A sound is
only "great" in the ears of the beholder. Objectively, all sounds
are equally good or bad. So, programming sounds involves tinkering
with this interaction between sound, the ears, the mind, and the
fingers of the player.

AUTO BEND

These parameters can be used in conjunction with the attack por-
tions of the envelopes to create greater detail and effects in the
attack segment of the sound. In it's purest form, this technique
involves setting Auto Bend intensity (p17) to maximum, Auto Bend
time (p16) to minimum and direction (p15) to "down." You may assign
the effect (p14) to one or both oscillators. Sound # 11 is an example
of this effect:

```
Patch name: Percussive    Key Assign:Poly 1   Par. Memory:51
11:16  12:10  13:31  14: 2  15: 2  16: 0  17:31
21:16  22:10  23:31  24: 1  25: 2  26: 0
31:26  32: 0  33: 2  34: 1  35:31
41: 0  42: 3  43:11  44:31  45: 0  46:13  47: 6
51: 0  52:31  53:24  54: 0  55:12  56:10  57: 6
61: 0  62: 0  63:18  64: 0  65: 4  66: 2  67: 0
71: 2  72: 0  73:13  74:12  75:26  76:15  77: 0
81: 0  82: 1  83: 3
```

Turn this effect on and of with p14 to make certain you understand
exactly what part of the sound we are talking about. In this sound
we find a value of Ø for both p51 and p41. Changing either of these
two values will affect the Auto Bend feature in as much as it changes
the entire attack portion of the sound. The coordinated timing of
p16 with p41/p51 is important. It is possible to have the Auto Bend
occur before the sound becomes audible (if, for instance p51 is
set to 2Ø and p16 is set to Ø) which renders the effect inoperative.
Bringing the effect back in to view, by gradually reducing the value
of p51, will give you some idea of the possible variety of interaction.
With p51 at Ø, try adjusting the value of p41 from Ø through 31. Next
try adjusting the value of p16 likewise, while p41/p51 are set to Ø.
By now you should have a good understanding of the interaction of
these three timing elements.

The situation is pregnant with possibilities, since we have as yet
to explore the other envelope parameters and the variety of sounds
that can be created by introducing various harmonic material via wave-
forms and filter settings. Processing these sounds through the many
possible DDL settings creates an even greater range of sounds.

VCF (FILTER) EG

We will stay with this same example for the moment. Note the val-
ues of parameters 41-45. Remember that the filter always opens to
the maximum amount (controlled by p31) (in this case, 26) at the
beginning of the envelope. P41 merely controls the speed of this
opening. In our example this is as close to instantaneous as we
can make it. P42 then closes the filter down to the level determined
by p43. It is helpful to think of the maximum level as being equal
to a setting of 31 for p43. In our example this amounts to a very
quick and very drastic change in level for the filter. Turn-off p14
so that you can hear the effect of the VCF EG alone. Now, exper-
iment by increasing and decreasing the value of p42. Then, return p42
to a setting of 3 and increase the value of p43. Again, return
the settings to normal and experiment with p41. Now, return to the be-
ginning of this paragraph and re-do these experiments while adjusting
the filter's level via p31.

Ncte the interaction of the VCA EG which at present is not actively
affecting the sound. It starts at maximum volume and gradually
declines, simply revealing the activity of the VCF EG. By increasing
the value of p51 we can "actively" affect the contribution of the

VCF EG. Try raising the value of p51 until the effects of the Auto Bend and p41 become inoperative. Try this on sound #13, where the tempering of the attack segments via p51 is part of the sound's design:

Patch name: Rubies			Key Assign:Poly 1			Par. Memory:45
11:16	12:16	13:31	14: 1	15: 2	16: 0	17:31
21: 4	22: 5	23:31	24: 1	25: 2	26: 0	
31:21	32: 0	33: 0	34: 1	35:31		
41: 0	42: 5	43:19	44:20	45: 8	46:12	47: 5
51: 3	52:31	53:24	54: 0	55: 4	56:10	57: 6
61: 0	62: 0	63:18	64: 0	65: 3	66: 0	67: 0
71: 2	72: 0	73:13	74:10	75:31	76:15	77: 0
81: 0	82: 1	83: 3				

AUTO BEND, PART 2

In the above example you will note that the Auto Bend only affects the output of oscillator 1. Note the octave and waveform settings of that oscillator. Note the octave and waveform settings of oscillator 2, which are not affected by Auto Bend. Now, adjust the values of these four parameters (p11,p12,p21,p22) one at a time until you have a good sense of the variety of sounds created with different settings.   Try routing the AutoBend (p14) to both oscillators or just oscillator 2 and try turning it off. Also try switching the direction of the jump via p15. By now you should have a good understanding of just how sensitive the ears/mind is to these slight changes. These changes can create psycho-acoustical effects which are quite different.

WAVEFORMS

It is helpful to know the character of each waveform. It will be easy to learn waveforms 2, 4, 5, 6, 7, 15 and 16 since they have unique qualities which identify them in almost any context. The differences between 1,9 and 13 are more subtle; as are the differences between 3,10,11,12 and 14. I pay no attention to the "instrumental" source of these waveforms, be it "piano" or "violin", since it is a rather distant relationship (if any!) Use the waveform that works best. This you will come to know by experiance and knowledge of the waveforms and by trying them all out in each program.
I find that 9 and 13 are quite similar, and very useful. They aren't as bright as 12 and 14. 1 and 8 are quite similar also, not unlike 9 and 13. These are good, all purpose waveforms without unpleasant, harsh qualities. 4, 5 and 15 have definate bell qualities which can sometimes be useful. 6 and 7 have such definate clav and organ qualities that you can always identify their presence.

DIGITAL DELAY (DDL) SETTINGS

Let's take a break from this programming of "primary" sound mater- ial and take a look at what happens to it when put through the "sec- ondary" processing of the internal DDL. Our first example will be sound #12.

Patch name: Frozen Air   Key Assign:Poly 1   Par. Memory:33
11:16   12:10   13:31   14: 2   15: 2   16: 0   17:31
21:16   22:10   23:31   24: 1   25: 2   26: 0
31:26   32: 0   33: 2   34: 1   35:31
41: 0   42: 3   43:11   44:31   45: 0   46:13   47: 6
51: 5   52:31   53:24   54: 0   55:12   56:10   57: 6
61: 0   62: 0   63:18   64: 0   65: 4· 66: 2   67: 0
71: 2   72: 0   73:13   74:12   75:26   76:15   77: 0
81: 0   82: 1   83: 3

     Let's familiarize ourselves with this sound. Set p76 to Ø in
order to cut out the DDL effect. Now listen to the raw material
for a bit. Cut off the Auto Bend at p14. Then, cut off the LFO
modulation at p65. Now, take a few minutes to experiment with
p51. Once you feel reasonably sure that you understand this sound
we will go back to the DDL and try different settings. Leave the
AutoBend and LFO off. Please note at this point that this sound
does not use the noise generator (p26) and that detuning (p25) is
minimal. The effect of noise and thickness is coming from the
waveform (#1Ø is good for this), the filter EG and the DDL
settings.

     Let's bring p76 back up to level 15. Then, bring the LFO back in
at p65. Raise it quite high and then lower it to it's original
setting. Then set it back to Ø. I am having you do this so that
you will understand where the various sources and speeds of modu-
lation are coming from.

     This particular DDL effect, as you probably know, is called
chorusing. It relies upon a slow modulation of pitch in the dig-
itally replicated sound which is time shifted against the original
sound slightly. More psycho-acoustics! If any of these elements are
changed we get other effects, most of which have names that have
become accepted through convention. There is, however, no clear demar-
cation between one effect and another, they blur at the boundries.
The same settings may have somewhat different effects on different
sounds. They are a type of seasoning with which we flavor the sounds.
Good cooks treat the main ingredients and spices with equal care
and plan the effect to be the result of both.

     This example shows very typical chorus parameters. Raising the
speed of modulation (p74) much above 1Ø gets us into other effects.
You can raise or lower the intensity of pitch modulation with p75.
You will note that in this effect it is usually near maximum.
In this type of DDL effect, where the time-shift factor is small
(p71, p72 at low levels)there is not a tremendous difference between
decreasing the effect via p75 or p76. In other settings, where there
was a definite and discernible time-shifting element, and where mod-
ulation was heard as an actual pitched LFO, p76 and p75 would have
very different control functions. Feedback is not very important in
this effect. If you raise p73 to level 15 you will here what it would
do if introduced. We will come back to that later.

     When adjusting chorusing to suit a particular sound you will mostly
be adjusting the speed of modulation to compliment the speed of the

modulation in the LFO parameters. So, let's set p65 to 4 and
adjust the DDL modulation at p74. We are playing two sources of
modulation against each other. Now try changing the speed of
modulation at p62. Note that we had it at its slowest possible
setting to create a subtle movement within the sound. A third
source of modulation can be obtained by the detuning of the osc-
illators to the point where the out-of-tune pitches set up a
pulsating frequency through their phase interaction. This is
a difficult to control and subtle source of modulation which
can sometimes be effective.
    Most sounds in Volume 8 use some variation of the chorus-type
DDL settings with p71 set to a value of 2. Sound #52 does this
as well, but uses a fast modulation at low intensity:

Patch name: SteveMiller   Key Assign:Poly 1   Par. Memory:64
11:16   12:13   13:31   14: 3   15: 2   16: 0   17: 2
21: 4   22: 7   23:31   24: 1   25: 0   26: 0
31:13   32:11   33: 0   34: 1   35:25
41: 0   42:23   43:27   44:31   45:25   46:11   47: 4
51: 0   52:24   53:25   54: 0   55:25   56:12   57: 5
61: 0   62:10   63: 0   64: 2   65: 0   66: 0   67: 0
71: 2   72: 9   73:14   74:29   75: 6   76:15   77: 0
81: 1   82: 0   83: 0

Note the difference between this sound and #53:

Patch name: Angel Rotor   Key Assign:Poly 1   Par. Memory:24
11:16   12:13   13:31   14: 2   15: 2   16: 0   17:27
21: 8   22: 7   23:31   24: 5   25: 4   26: 8
31:28   32: 6   33: 2   34: 1   35:22
41: 0   42: 0   43:11   44:25   45:10   46: 9   47: 0
51: 1   52:31   53:31   54:31   55:31   56: 9   57: 5
61: 0   62:25   63: 1   64: 6   65: 2   66: 0   67: 0
71: 2   72:15   73:14   74: 9   75:31   76:15   77: 0
81: 0   82: 1   83: 2

Sound #63 uses p71 set to a value of 1:

Patch name: Her Wrist   Key Assign:Poly 1   Par. Memory:62
11:16   12:10   13:31   14: 1   15: 2   16: 5   17: 0
21:16   22: 3   23:31   24: 1   25: 4   26: 5
31:19   32: 5   33: 2   34: 1   35:12
41:19   42:22   43:17   44: 5   45:21   46:12   47: 4
51:14   52:18   53:16   54:12   55:11   56:12   57: 3
61: 0   62:16   63:10   64: 3   65: 6   66: 0   67: 0
71: 1   72: 7   73:11   74: 7   75:27   76:12   77: 0
81: 0   82: 0   83: 0

Sounds #71,47 and 31 use p71 set to 3:

Patch name: MatrixBrass   Key Assign:Poly 1   Par. Memory:24
11:16   12: 1   13:31   14: 1   15: 2   16: 2   17:24
21:16   22: 1   23:31   24: 5   25: 3   26: 0
31:25   32: 0   33: 0   34: 1   35:31
41: 5   42:19   43:17   44:19   45:15   46: 8   47: 7
51: 6   52:18   53:18   54:19   55:14   56: 5   57: 4
61: 0   62:19   63:17   64: 2   65: 0   66: 2   67: 0
71: 3   72: 0   73: 9   74: 5   75:10   76:15   77: 0
81: 1   82: 0   83: 0

Patch name: ManyDetails   Key Assign:Poly 1   Par. Memory:33
11:16   12: 1   13:31   14: 2   15: 2   16: 1   17:31
21: 8   22: 1   23:24   24: 1   25: 4   26: 0
31:25   32: 0   33: 1   34: 1   35:19
41: 0   42:19   43:17   44:19   45:15   46: 8   47: 7
51: 2   52:18   53:18   54:19   55:14   56: 5   57: 4
61: 0   62:19   63:17   64: 4   65: 0   66: 2   67: 0
71: 3   72: 0   73: 9   74: 5   75:31   76:15   77: 0
81: 1   82: 0   83: 0

Patch name: Sister Moon   Key Assign:Poly 1   Par. Memory:46
11:16   12:11   13:31   14: 2   15: 1   16:14   17: 3
21:16   22:13   23:24   24: 1   25: 4   26: 7
31:28   32: 7   33: 2   34: 1   35:24
41: 5   42: 0   43:11   44: 0   45:11   46:10   47: 4
51:16   52:13   53:10   54:28   55:11   56:10   57: 3
61: 0   62:15   63:11   64: 1   65: 0   66: 0   67: 0
71: 3   72:12   73:14   74: 2   75:31   76:15   77: 0
81: 0   82: 0   83: 2

Sound # 58 is our first example using feedback (p73) set to 15.

Patch name: D'dgeridu   Key Assign:Poly 1   Par. Memory:85
11: 4   12:13   13:31   14: 2   15: 1   16: 0   17:12
21:16   22:11   23:31   24: 1   25: 4   26: 6
31:31   32:24   33: 0   34: 1   35:10
41:25   42:24   43:18   44:24   45:25   46:20   47: 5
51:23   52:15   53:17   54:28   55:17   56: 8   57: 0
61: 0   62: 0   63: 0   64: 2   65: 5   66:12   67: 0
71: 2   72: 5   73:15   74: 5   75: 9   76:15   77: 0
81: 0   82: 1   83: 0

Try shutting off the DDL settings to examine the "primary" sound.
These DDL settings are typical chorus settings except that feedback
has been set to the maximum and modulation reduced. At p71 values
of Ø and 1 the feedback becomes controllable within normal musical
sounds, as in sound # 74 and # 86:

Patch name: Tube Amplf.   Key Assign:Poly 1   Par. Memory:14

11:16	12:14	13:31	14: 1	15: 1	16: 1	17:31
21:16	22:12	23:31	24: 1	25: 2	26: 0	
31: 5	32: 3	33: 2	34: 1	35:31		
41: 1	42:16	43:22	44:29	45: 9	46: 7	47: 6
51: 0	52:16	53:12	54:19	55:31	56: 7	57: 0
61: 0	62:16	63:12	64: 3	65: 1	66: 2	67: 0
71: 0	72: 8	73:15	74: 2	75:31	76:15	77: 1
81: 2	82: 0	83: 1				

Patch name: Garage   Key Assign:Poly 1   Par. Memory:77

11:16	12:10	13:31	14: 2	15: 1	16: 0	17:31
21:16	22: 6	23:31	24: 1	25: 2	26: 0	
31:11	32: 6	33: 3	34: 1	35:31		
41: 1	42:16	43:24	44:27	45:17	46: 7	47: 7
51: 0	52:16	53:12	54:22	55:19	56: 7	57: 0
61: 0	62:18	63: 9	64: 4	65: 5	66: 2	67: 0
71: 0	72:15	73:15	74: 2	75:31	76:15	77: 0
81: 2	82: 0	83: 3				

AUTO BEND, PART 3

Note that p17 can be set to a very low level to add a subtle element to "imitative" sounds such as #81:

Patch name: New Celeste   Key Assign:Poly 1   Par. Memory:42

11: 8	12: 5	13:31	14: 2	15: 1	16: 0	17: 3
21: 4	22:15	23:31	24: 1	25: 3	26: 0	
31:14	32: 0	33: 0	34: 1	35:31		
41: 0	42: 3	43:28	44:24	45: 0	46:12	47: 5
51: 0	52:13	53:21	54:20	55: 0	56:12	57: 2
61: 0	62:11	63: 0	64: 1	65: 1	66: 2	67: 0
71: 6	72: 5	73: 8	74: 2	75: 1	76: 7	77: 0
81: 0	82: 0	83: 0				

UNUSUAL WAVEFORM AND OCTAVE COMBINATIONS

Many of the sounds in Volume 8 have the 2 oscillators set to different octaves. In nearly every sound 2 different waveforms are used. Using the same waveform (see sound #12) causes a type of chorusing similar to DDL, but not always pleasant. Here are some examples of unusual octave/waveform combinations resulting in interesting harmonic material:

Patch name: Calypso   Key Assign:Poly 1   Par. Memory:23

11:16	12: 1	13:31	14: 0	15: 2	16: 0	17:31
21: 4	22:12	23:31	24: 5	25: 2	26: 0	
31:10	32: 6	33: 2	34: 1	35:25		
41: 2	42: 0	43:26	44:29	45:14	46:13	47: 6
51: 0	52: 0	53: 0	54: 0	55:31	56:10	57: 2
61: 0	62: 1	63: 9	64: 1	65: 0	66: 0	67: 0
71: 2	72: 0	73:13	74: 8	75:31	76:15	77: 0
81: 0	82: 1	83: 3				

Patch name: Cameo   Key Assign:Poly 1   Par. Memory:14
11: 8   12:16   13:31   14: 2   15: 2   16: 0   17:27
21: 4   22:16   23:31   24: 5   25: 0   26: 0
31:12   32: 0   33: 0   34: 1   35:31
41: 0   42:13   43:25   44:27   45:13   46: 7   47: 0
51: 0   52: 0   53:31   54:28   55:27   56: 7   57: 0
61: 0   62:21   63: 6   64: 6   65: 1   66: 2   67: 0
71: 0   72: 0   73:15   74: 6   75:31   76: 9   77: 0
81: 1   82: 1   83: 1

Patch name: "Service!"   Key Assign:Poly 1   Par. Memory:47
11:16   12:10   13:31   14: 2   15: 2   16: 0   17: 0
21: 4   22: 7   23:31   24: 1   25: 2   26: 0
31:26   32: 6   33: 2   34: 1   35:31
41: 0   42: 9   43: 9   44:31   45: 0   46:13   47: 6
51: 0   52:31   53:24   54: 0   55:12   56:10   57: 6
61: 0   62: 0   63:18   64: 0   65: 4   66: 2   67: 0
71: 2   72: 0   73:14   74:12   75:26   76:15   77: 0
81: 0   82: 1   83: 3

Patch name: Roto Rooter   Key Assign:Poly 1   Par. Memory:23
11: 4   12: 6   13:31   14: 0   15: 1   16: 0   17: 0
21:16   22:13   23:31   24: 1   25: 3   26: 2
31:14   32: 0   33: 2   34: 1   35:27
41: 0   42:18   43:14   44:29   45:14   46:13   47: 6
51: 8   52:12   53:22   54:30   55:24   56:12   57: 1
61: 0   62:19   63: 8   64: 9   65: 0   66: 1   67: 0
71: 2   72: 8   73:14   74:29   75: 5   76:15   77: 0
81: 1   82: 1   83: 1

Patch name: Perculator   Key Assign:Poly 1   Par. Memory:82
11:16   12:13   13:31   14: 0   15: 2   16: 0   17:17
21: 8   22:10   23:24   24: 1   25: 3   26: 0
31:18   32:13   33: 2   34: 1   35:31
41: 0   42: 4   43:11   44: 3   45:11   46:11   47: 7
51: 0   52: 0   53:27   54:31   55:27   56:13   57: 2
61: 0   62:10   63: 0   64: 3   65: 0   66: 0   67: 0
71: 3   72: 0   73:14   74: 3   75:31   76:15   77: 0
81: 0   82: 3   83: 0

INTERACTIONS

It is clear that interesting sounds are created through the in-
teraction of a number of contributing devices. Using just one or
two devices often results in bland, one-dimensional sounds. Aligning
many different sources of movement can create interesting and sparkling
sounds. These sources are Auto Bend; Waveform and Octave Pairs;
VCF/VCA EG's; LFO (delay, pitch, filter); DDL.

Please refer to the notes in your programming manual concerning
the relationship between velocity, filter and envelopes. These
three elements are the keys to programming which responds dynamically
to touch. They are the cake to which these notes are the icing.

In summary: You have control over timing elements in your sound
via Auto Bend, Envelopes (12 sources here alone!), LFO (delay, speed,
intensity), and DDL. If we include detuning as a possible source of
modulation, we have over a dozen ways to create movement within a
sound. Use them! The orchestration of these timing cues is a
particularly musical activity. Although we call it programming, it
is neither scientific nor mathematical; rather it is artistic and
psychological. It is more like card tricks than it is like science.
Your success is certain if you take it as a great adventure into the
exploration of sonic beauty. Your sounds will be as good as your
desire for musical expression is intense.

11 Percussive	12 Frozen Air	13 Rubies	14 La Paz	15 Hybrid	16 "Service!"	17 Perculator	18 Spot
21 Vegematic	22 Vibrachiff	23 Roto Rooter	24 Syncro Mesh	25 Irene	26 "...Wham!"	27 White Fence	28 Laundry
31 Sister Moon	32 Breath	33 NightVision	34 Fragile	35 Tides	36 Timbre	37 Liquid	38 Auditorium
41 Ear Muffs	42 Mona Lisa	43 Reindeer	44 MacchuPiccu	45 Squeak	46 "...splat!"	47 ManyDetails	48 Greek Ships
51 Empty Rotor	52 SteveMiller	53 Angel Rotor	54 Vox	55 Mrs.Minerva	56 "Blind..!"	57 New Math	58 D'dgeridu
61 SomeJourney	62 Resonant	63 Her Wrist	64 Night Bloom	65 Orchids	66 Venus	67 Phases	68 Mr.Delvaux
71 MatrixBrass	72 Secrets	73 ArpeggFlute	74 Tube Amplf.	75 Roto Shriek	76 Calypso	77 Africa	78 RotoStrings
81 New Celeste	82 Vega	83 Chorus	84 Prof. Fabre	85 Pseudonym	86 Garage	87 Cyclamen	88 Cameo