Composing with a Sequencer - is that it?

Have you ever thought what sequencing will be like in five years time? Unless we've cracked brain wave transfer we'll probably still be recording and editing. But we'll have lots more computer memory to run modular systems, integrated graphics and video and most certainly software that makes use of the developing science of A.I and neural networking.

There is already a host of software devoted to A.I interaction with music. Most of it will even respond in real-time. You play a phrase - the computer records it and plays it back with randomized or additional elements within it. You set up the template that controls the playback; I'll have just 50% of the notes I played - I don't care what or where they are; I'll mask all these pitches and get variations on all the rest; I'll play this one note and get these chords sequences to sound as a result. . .

This kind of interaction is based on imagining a possible outcome and goes a bit further than what we bring to just recording and editing. Instead of getting stuck into moving from one note to another it's possible to put some of the low-level detail (that's A.I jargon for notes and rhythms) into the hands of the computer. We can say 'I know I want to be around this key, using some of these rhythms, in this tempo, with these instruments' and concentrate on higher-level matters; that is - 'what plays when and where and for how long', making structures containing melodies, chords and tonality progressions and dynamic schemes.

The problem with these composing and performing tools is that it takes time and commitment to integrate them into your style and working pattern. You may get some ideas, grooves, accompaniments, textures from their use but the level of interaction is not very far reaching. In the final analysis, is the input really worth the quality / originality of the output?

Composers who work with the tools of MIDI production tend to need a fix of 'the sound' . The sound so often makes the frame for the musical image we have in mind. This is followed by multitrack recording and playback and then the fun begins with the editing. Did I really make all that out of just this little hook? With sequencer editing you're in total control, but only of the material you've recorded.

Have you ever have wondered whether sequencer access to making it all happen sonically is making your music any better. When you're constantly in that feedback loop of play, record, edit are you really composing higher quality material because of that interaction. Or, are you too close

to the detail of the music and to be able stand back and reflect on what you have done or are doing.

In *Symbolic Composer* (from Tonality Systems) you may well find an answer to this dilemna and an exciting way to develop or redevelop your musical thinking and image making. It's a MIDI production tool that can help you build effective musical images without the immediate interaction of record, play and edit. Yet, it can fully connect and integrate with your sequencer / scorewriter.

Symbolic Composer can be described as an 'expert-system' for music production, based on the father of A.I languages Lisp. Expert-systems are found in many specialist database and CAD programs. Medics use them for diagnosis and engineers for applying design variables to structures. In the same way, composers can create musical images and test them out at the level of the imagination before getting tied down in the detail, and possible distractions, of sound and performance data.

But is a programming language the kiss of death to creativity - you want interaction and you want it now. But is composition really like that? Stravinsky may have said he had to have contact with sound to compose but does that mean he stopped thinking about his music when he wasn't playing the piano.

Let me reassure you that, as programming languages go, Lisp is one of the most elegant, economical and sensible to learn. It takes as long to learn the basic syntax as it does to learn the rules of chess. As computer memory gets to a 4 megabyte user standard Lisp is now viable. Macintosh Common Lisp is probably the most spectacular language implementation available on a micro-computer. *Symbolic Composer* sits on top of Lisp with its own *6th Generation Common Music Language*. This has been designed with and tested by a team of composers who have managed to integrate all the elements you could possibly need for music creation no matter what your style or purpose. And, its extendible and customizable.

How does it work? You compose with symbols rather than notes; number . formulas cover rhythm and note length. You have a library of functions you can apply to these symbols and numbers. The functions are generators, processors, convertors, mappers, neural experts and librarians. You then use definers to build instruments which are scored on a timesheet and compiled to standard Midifile.

Composing with symbols - I do that already with musical notation. No, this is different. Here, the musical alphabet extends from a to z (and beyond into ASCII code if you wish). Don't think of the symbols `'(a b c`

`d)` as the notes of the natural minor scale of A. You map the symbols to a chosen tonality, your own or predefined, on any starting pitch or octave.

Rhythms are described as note lengths in `'(1/8 1/16 1/16 -1/16 1/16 1/16)` or , `'( 48 24 24 -24 24 24 24)` or `1/16 "- -- ---"`. This is particularly good for producing immediate and accurate representation on a MIDI scorewriter.

Tonalities can be scales `(c 5 lydian)` or chords `'(c maj 7#11 1 )`. Dynamics are controlled by velocity number lists `'(96 45 56 0 67 75 85)`.

It all looks fairly innocuous until you start using these language elements with the production tools themselves. If you thought your current fractal music program was valuable but rather uncontrollable this will be a revelation. *Symbolic Composer* has its own collection of fractal generators that not only give you access to some high-level algorithms but open the door to you writing or implementing your own.

One of the key ideas behind *Symbolic Composer* is that any data may be used as a seed for getting music to grow. There is complete freedom in the conversion of material either way be it numbers or symbols. This means you could create a modulated sine wave and convert it directly to symbols. The interface has a Visualizer which lets you see this kind of thing and interact with it.

To use *Symbolic Composer* takes some study and mental adjustment. It's not for the impatient! But for those who mean business in their relationship between computer technology and music composition and want a production tool that really opens the door to the future, this may be the answer. It's supported by an imaginative tutorial resource and learning pathway written by a music educator and composer.

If you are looking to explore in your musical work the potential of unified sciences, mathematics, chaos theory, what you will, this may give you the most exciting platform you are likely to find commercially available. The software will be equally at home in the hands of the   media musician as the experimental composer. It carries a unique library manager giving extraordinary connections into rock and ethnic drum and percussion patterns and rhythms.

If you have ever wanted to learn a computer language but been unwilling to leave your music behind, now is the time to discover Lisp and *Symbolic Composer.*

Symbolic Composer runs on any Macintosh of 4 megabytes and over. The author runs his multitasking with Dr.T's Beyond sequencer on a 4 meg Classic II. There is also version for the Atari.   Here it can run effectively as a PVG module of Dr.T's Omega sequencer.

A Hypercard (with MIDI) stack *Introducing Symbolic Composer* is currently available.

Symbolic Composer   is available from Tonality Systems, Veerstraat 55/1, 1075 SN Amsterdam, Netherlands. Tel/fax +31-20-6757-993. Contact: Peter Stone.

Tonality Systems in the UK are represented by IMPAC Consultants
18 Park Avenue, Denby Dale Road, Wakefield, West Yorkshire, WF2 8DS
Tel: 0924 383017. Fax: 0924 291008. Contact: Nigel Morgan

ZONE Distribution are currently making the Atari version configured as a KCS MPE Module available to registered Dr.T users. Zone Distribution, Unit 6/70 Eurolink Business Centre, 49 Effra Road, London, SW2 1BZ. Tel: 071 738 5444. Contact: Mike Partridge.