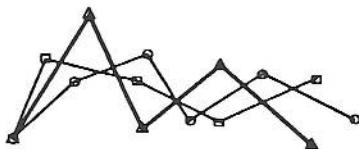


# Chroma



Newsletter of the Australian Computer Music Association, Inc.  
PO Box 186 Post Office Agency La Trobe University VIC 3083

Number 12  
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p Channels_1_to_8	OFF	
p Channels_9_to_16	PITCH	
p OTHER PATCHES	directon	forwards
<input type="checkbox"/> RECEIVE NOTES	minimum	0
Note in	maximum	380
C-1	offset	0
Velocity in	status & index	0
0		14
Number of notes you played.	OFF	
0	PITCH	
midi ch output	*	1
0	%	128
	+	0
min/sec	Preset	
elapsed	number	
0	1	status
		0

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### New ACMA Address

Please note that ACMA now has a new mailing address located at La Trobe University:

ACMA, Inc.  
PO Box 186  
Post Office Agency  
La Trobe University  
VIC 3083

For those with correspondance already in the mail sent to our old address, we are having such mail redirected for the time being.

### Membership Renewal and New Members' Drive

A big thank you to all members who have already subscribed to ACMA for 1993, and welcome to the wave of new members who have recently joined us. We know there are still more potential new members with fresh ideas and energy out there, and hence we once again include two membership forms at the end of this issue for you to pass on to your interested friends. As an incentive to new members we are offering the first ACMA CD *Machine Messages*, at the special discount price of only \$5.00 with each new subscription. *Machine Messages* featurtes the original compositions of ten ACMA members, and was profiled in a recent review in *Vital*, which is reprinted here on page 7. This offer is also available to interested persons who have already subscribed for 1993.

### Chroma Contributions

Also on the topic of fresh ideas and energy, we need to hear from all you readers out there via your own contributions to Chroma. Any articles, reviews or items of news you may have are more than welcome and will no doubt prove interesting to other readers out there.

### Sydney Computer Music Symposium and Concert

Don't miss the Computer Music Syposium and Concert being held at Sydney University on the 10th July. Full details are provided on page 8 and an application form is attached to the back of this edition of Chroma. ACMA wholeheartedly supports this initiative and sees gatherings such as this as integral to the establishment of a vital and effective network for the fostering of electroacoustic music in this country. We hope you can make it and look forward to seeing you there.

### Future ACMA Concerts for 1993

Besides the 10th July Sydney concert and some possible collaborations with the Contemporary Music Events Company in Melbourne, ACMA plans to present one other concert of electroacoustic music this year, which will also be held in Melbourne. At this stage the form of this concert is entirely open so we are looking to all our members for their ideas and contributions. Feel free to contact us with any queries or suggestions which you may have.

### MEATA Concert

As mentioned in the previous issue of Chroma, the Music Education and Technology Association is running its music and technology week at Eltham College from June 21st to June 25th. The performance highlight for the week is the Final Concert, to be held on Thursday 24th June. Performers who are interested in contributing to this concert should contact Julie Lindsay at:

Eltham College  
PO Box 40  
Eltham 3095  
ph: (03) 437 1421

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# VARICOM: An interactive composing program created in 'Max.'

Roger Alsop

Over the past two years I have been working on creating composition programs with 'Max'. The program I am writing about here uses simple arithmetic techniques to create variations from single line melodies. These melodies are played in by the composer using a MIDI interface or generated within the computer.

My reason for using the computer as a composition aid is that it offers musical (and other) possibilities that are novel to me but which are created in an environment over which I have complete control. In this way it is possible to test a wide variety of ideas with little effort, particularly when compared to using sequencing programs or notation then playing. It is also possible to intergrate two or more art forms within this program. My present interest is in creating an environment in which practitioners in a variety of art forms can interact, using the computer as the meeting point. To this end I built VARICOM within MAX.

Figure 1 shows the first screen of VARICOM. (see p. 4)

VARICOM is divided into three sections.

SECTION ONE (OFFSET in figure 1) takes in pitch, velocity and duration (msecs between note on and note off) information, stores that information in respective collections ('colls') then replays that information as three strings which can be effected in:

the order or direction of the information - forwards, backwards or cycling forwards and backwards, and

the area of the information-

which section of the information is used. How the information of one type is related to the information of the other types.

The information, or information resulting from adjustments made in OFFSET, then feeds into SECTION TWO, (OPERATIONS in figure 1). Here the pitch, velocity, duration and attack distance (msecs between note ons) numbers are operated on. These operations are: multiplying the pitch, velocity, duration and attack distance number within a modulus and then transposing the result up, with a positive number, or down, with a negative number. In the case of duration and attack distance the transposition number is the time added to the result of the operations. It is also possible to multiply the final duration and attack distance numbers by a float, allowing the collapsing or expanding of the respective times.

From here the information goes to the SECTION THREE, shown in figure 1 as "p\_Channels\_1\_to\_8" and "p\_Channels\_9\_to\_16" where it is finally sent out to a MIDI channel. Before arriving at a MIDI channel the information can be sent through a sieve, delayed and have pitch, velocity and duration operated on in the style given above. The volume, timbre MIDI channel and pan placement can also be set for each channel.

"p\_Channels\_1\_to\_8" and "p\_Channels\_9\_to\_16" can take information from a number of places, not just the information generated in Sections one and two. The source column menus allow for information to be received from: the original melody played in, the OFFSET melody, the OPERATIONS melody or any other source.

At present I am running a 16 channel version of the program, in which all the operations given in SECTION THREE are carried out, this allows for up to 16 lines to be used. The number of channels that can be used is limited by the amount of RAM available.

I am currently using a subsidiary patch called 'phones'. This patch is devised to take the phonemes of the English language and give a pitch, velocity, duration and timbre to each phoneme. The patch then sends the information to the OFFSET and OPERATIONS sections of VARICOM. From there it goes to "p\_channels ..." and finally out to a MIDI device.

Figure 3 shows only a small section of the 'phones' patch. It continues on to account for all phonemes used in the English language.

One of the limits of the 'phones' patch is that it does not allow for different pitches, durations, etc. to be tied to one phoneme. While this can be seen as hampering the musical representations of the poems it is actually similar to the nature of sound in language: æ and ç have specific sounds just as C4 on a flute has a specific sound. I shall call these notes the 'prime notes'.

This problem can be avoided in 'p Channels ...' by using the sieves, multiplication and modulus functions. In this way the transposition level, duration and dynamic of each prime note can be changed to fit the compositional needs of different parts of the piece. This fits with the common use of phonemes in the English language, where stresses are placed on the phonemes according to their context.

From p\_channels ... it is possible to send information to other subsidiary programs. I am using this facility to send musical information to a word and phrase making program. In this program I can place morphemes, words, phrases or sentences onto the Macintosh screen and have those events to coincide with musical events. At present we are using text from the poems used to generate the music for this purpose.

These experiments are in very early stages. I am working closely with two Melbourne poets, Alex Skovron and Earl Livings, to produce some musical compositions. Alex and I are using the computer to effect his voice while reading and to provide an accompaniment to that reading. Earl and I are looking at producing scores based on the poems. These compositions are based on the unfolding of sounds in the poems and mapping that onto the unfolding of sounds in music. We are interested in using traditional instruments to realize the music.

To musically represent a poet's ideas with accuracy and integrity requires that the poet explain their work and that I explain my reactions to it. It is valuable to know why the form, meter, rhyme scheme, rhetoric devices and so on are being used. These are the devices that translate best to the composition of music and should be used to create the same effect in the music as they are used to create in the text.

The collaborative process means that there is much discussion, misunderstanding, clarifying and revelation. Our goal is to create musical representations of the poems and not simply settings for the poems. By entwining these two arts, music and poetry, so concretely and precisely it is possible to forge, or at least begin to forge, a practise in which the two arts can be merged into one.

Now to Max.

When Jeff Pressing demonstrated this program at La Trobe university I realised there is a benevolent God. Only days before the fateful demonstration I had been

talking to friends about putting aside a significant portion of my life to create something like Max. This would give me the environment in which I wished to work.

Now, having purchased Max, I doubt that there has been a day when I haven't used it and still its uses are growing.

That the program has caught on so much shows the desire so many musicians have for making music with a computer, as distinct from on a computer. Around La Trobe there has been talk of getting as much dialogue between Max users as possible and setting up a network of Max users. Some of the obvious results of this type of network are:

problem solving, ("Do you know how to do this?")

economy, (Ever spent days of patch writing and debugging then heard someone say "I did something like that last month?")

support, ("I don't think it's possible to do that.")

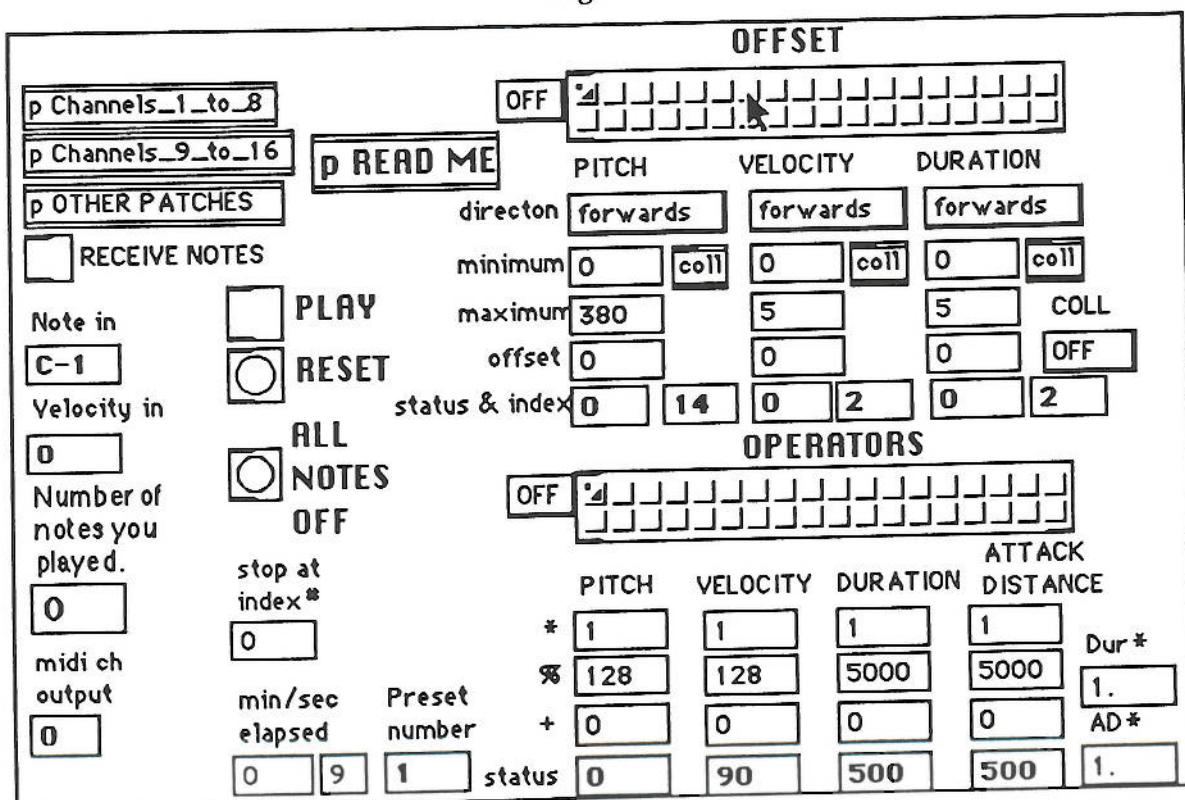
To me the most beneficial outcome of this network is that musicians and composers will be able show their style and interests in a concrete way. Looking at a patch and what it does gives an insight into the compositional processes and musical interests of the musician who created it.

If there is interest in joining this group please send the relevant info to ACMA at the new postal address. If there is interest in the program I described above I can be contacted

by phone: (03) 489 1635

or email: MUSPRA@lure.latrobe.edu.au

Figure 1



index# 14  
change at 21  
Index#

SOURCE OFF ////////////////

SOURCE	Delay *	%	+	*	%	*	%	CHAN	Prog.	Vol.				
SIEVE	>0	1	3	60	C4	100	2000	500	1	128	90	1	100	>42
SIEVE	>0	1	3	60	D4	1	5000	500	1	128	90	2	12	>94
SIEVE	>0	1	3	60	C*4	6	505	475	1	128	90	3	17	>127
OFF	>0	5	12	0	C5	1	5000	2709	1	128	111	4	0	>127
OFF	>0	1	128	0	F*4	1	5000	750	1	128	24	5	12	>127
OFF	>0	11	12	0	C4	1	5000	2000	1	128	0	6	17	>127
OFF	>0	11	12	0	F-1	1	5000	3854	1	128	0	7	52	>0
OFF	>0	11	12	0	A*4	1	5000	143	1	128	0	8	53	>127

Figure 2

Unfortunately the pan sliders at the far right of the screen do not fit within the confines of the Classic II screen.

OFF      p insert/delete      ON/OFF      OFF      0      input  
current >0      show  
set -21

punctuation:	all note...	velocity	duration	1 Patch	pitch
E	>73	0	>000	0	0
i	>22	0	>500	54	0
FRONT VOWELS	A	>84	>250	41	0
e	>27	0	>333	20	0
a	>58	0	>666	49	0
IAMB	>67	0	>999	24	0
pALm	>127	0	>1500	33	0
o	>30	0	>2000	79	0
BACK VOWELS	pAW	>94	>500	74	0
ooat	>36	0	>1500	54	0
100k	>1	0	>1	0	0
b00t	>1	0	>1	0	0

Figure 3

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*As an adjunct to the previous article, here is an item discussing network based strategies for solving the problems which Roger touched on. As with much of the material included in the last few issues of Chroma, it is lifted from the internet, in this case, the International Max mailing list. (This brings us to another important issue, that of local input to Chroma, but that's another story...)*

*Those with internet access wishing to subscribe to the list should send mail to:*

*Majordomo@dcs.ed.ac.uk*

*The body of the message should contain the following:*

*subscribe max <your e-mail address>*

Apropos the issue/problem of sharing Max patches and objects -- here's a suggestion that might really be useful if people are willing to try it. Please let us know how you feel about this idea...

#### \* The Problem We Are Trying To Solve

There are a lot (thousands?) of MAX users in the world today -- creative, dedicated musicians who are busy creating and using MAX patches. Many of the MAX users are trying to do similar sorts of things and are running up against similar problems, and thus they are creating similar or identical MAX patches as solutions. Wouldn't it be more productive if the MAX community could share their patches so that the wheel would not continually be reinvented? That's the user goal of this project: a system that allows MAX users to share their patches productively.

#### \* One Potential Solution

One potential solution is to have an anonymous ftp site/AppleShare server site somewhere in Internet-land that stores all of the patches. Users can contribute their own patches, and can download any of the patches they find. This is the philosophy of such sites as the sumex-aim Mac archives.

#### \* The Problems With That Solution

The problems are two-fold. The first, and minor, problem is that using FTP or gopher to retrieve files is inconvenient. One would rather have an interface from right within MAX, perhaps a pop-up menu or dialog box. The second, and major, problem is finding what you want on a server with thousands of active contributors. The sheer volume would be staggering and thus only the dedicated would download patches and try them out. Consider the user who wants a patch or an object that plays sound files. She would have to look through all the filenames for something like "plysnd45a1.patch", hope that it was what she wanted, download it, try it, determine all the bugs, etc.

#### \* One Potential Solution to That Problem

A number of researchers have argued that full-text indexing of program (patch) documentation would suffice. Then our user would search through the documentation for "sound files" and download any patch that matched. This is better, but still relies on the patch authors to write good

documentation. Furthermore, our user will be downloading and trying patches based solely on the author's statement of the patch's worth. Of course the author will say good things about it, why else would he be uploading the patch? What our user really wants to know is: does it work for her problem?

#### \* Another Potential Solution to That Problem

Another solution that has been proposed is to have AI programs that run around the information space (the set of all patches), gather information, and produce expert opinions. I believe that this solution ranges between a lost cause and a long ways away. However, the idea of having expert opinions attached to each patch is a good idea: it would help our user decide which sound file patch she wants to use. Yet, who are the experts?

#### \* Our Proposed Solution

Our solution is to provide the MAX community the ability to add an opinion to any of the stored patches. Naturally, the author of the patch will provide opinion number 1, but any other user can add an opinion too. Our user can browse any or all of these opinions and apply her own definition of who an expert is. If she is just starting with MAX, then she may choose to believe only Zicarelli or Puckette. If she met Wessel at a conference, she may have been impressed and chooses to believe him. Or maybe her experience using the system leads her to trust Lippe when discussing NeXT-specific patches. Whatever it may be, it is her decision as to which opinions to use. Our solution would assist with this, by allowing our user to browse through patches and opinions using search criteria such as "patches with the words sound file with positive opinions by Zicarelli". A dialog box based interface would be provided to help her formulate her queries (the dialog box would have spaces for common requests such as "positive opinions by" etc.)

#### \* Our Research Goal

In addition to our user goal of providing this patch exchange service to the MAX community, we have a research goal of exploring Collaborative Information Systems. The system that we have outlined here is very similar to the original HyperText system proposed by Ted Nelson. It is also related to the WAIS, WWW, gopher, and archie information services currently available on the Internet. The main difference, however, is that our system deals with the feedback side of information -- rather than just providing information, our system allows the users to participate in evaluating it. This feedback allows our system to use human experts and the human mind to make choices, rather than attempting to emulate those cognitive powers in a computer program.

Regards,

Bjorn N. Freeman-Benson  
School of Computer Science  
Carleton University  
bnfb@ursamajor.uvic.ca

Andrew Schloss  
Department of Music  
University of Victoria  
aschloss@nero.uvic.ca

## New Music Label

Greetings, this letter is to introduce you to Transmission Communications, a new music label based in Brisbane, and catering for artists in the local region (Queensland), and possibly interstate as well. Transmission Communications has been formed to provide a platform whereby underground artists can release product without the restrictions of a major label deal.

Transmission Communications is concerned mainly with Electronic Music. Our interests are with artists involved with Innovative Electronic Pop, Industrial, Ambient Techno, Progressive, and Experimental music. Our activities will centre around the introduction of new bands/artists to the public, and the development of a new and interesting option in the Australian music scene.

Our mode of operation will centre around compilation CD's and DJ promo vinyl releases, along with the development of associated promo material and other mediums of information.

So, if you have a killer demo, or are simply fooling around with your stack of analogue keyboards, samplers, bits of wire, and associated equipment, we'd love to hear (from) you.

Info on / demo's to:

Transmission Communications  
Post Office Box 30  
Toowong QLD 4067  
Email: mail\_remmer@uqvax.cc.uq.oz.au

## ACMA CD Review

The following review was published in the European newsletter **VITAL**, a magazine for electronic and electroacoustic music. The review was authored by Anton Viergever, the magazine's editor.

MACHINE MESSAGES (Compilation CD by ACMA). ACMA stands for Australian Computer Music Association that was founded by Graeme Gerrard, who also produced this CD with a length of 70 minutes. Contributors are Warren Burt, Linda Ceff, David Chesworth, Graeme Gerrard, David Hirst, Cindy John, Chris Knowles, the group Ohm, Jeff Pressing and Felix Werder. Generally I don't like academic computer music very much, but on the other hand most music we hear nowadays is made with the help of computers. Production of popular music is almost entirely dependent on it. This CD contains neither pop music nor academic music, but something in between. Overall it sounds pretty accessible, although no efforts have been made to make it sound warm and human. That would have been a pretense that has fortunately been omitted on this CD, it is computer music after all. The way I like it best.

## LucyTuning Codes from Charles Lucy.

There is now a new technology available for you to harmonically enhance your music. It is called "LucyTuning" and may easily be implemented on your MIDI equipment, using PitchBend on separate notes on each channel or with microtuning tables. So that you can experience some of the effects now, the tuning table below can be applied to your new or existing MIDI files to give you more precise control over consonance and dissonance. For example, if you wish to sound the chord E Major, play it as E-G#-B. For the chord F minor use F-Ab-C. A i.e. A=110, 220, 440, 880 Hz is used as the reference pitch therefore all A's remain the same as for conventional tuning. All other notes are changed from conventional tuning as follows:

in 64ths of a semitone and cents (")  
(one hundred cents = one semitone).

A# = A#/Bb -20/64ths or b by 31.550 cents

Bb = A#/Bb +14/64ths or # by 22.535 cents

B = B - 6/64ths or b by 9.014 cents

Cb = B +29/64ths or # by 45.014 cents

B# = C -26/64ths or b by 40.564 cents

C = C + 9/64ths or # by 13.521 cents

C# = C#/Db -12/64ths or b by 18.028 cents

Db = C#/Db +23/64ths or # by 36.057 cents

D = D + 3/64ths or # by 4.507 cents

D# = D#/Eb -17/64ths or b by 27.042 cents

Eb = D#/Eb +17/64ths or # by 27.042 cents

E = E - 3/64ths or b by 4.507 cents

Fb = E +32/64ths or # by 49.579 cents

E# = F -23/64ths or b by 36.057 cents

F = F +12/64ths or # by 18.028 cents

F# = F#/Gb - 9/64ths or b by 13.521 cents

Gb = F#/Gb +26/64ths or # by 40.564 cents

G = G + 6/64ths or # by 9.014 cents

G# = G#/Ab -14/64ths or b by 22.535 cents

Ab = G#/Ab +20/64ths or # by 31.550 cents

Experiment with the codes and you'll discover new dimensions in your music, and the key to all the Earth's diverse harmonic tuning systems.

If you already have experience with microtuning, and have read Hermann Helmholtz, you will appreciate that LucyTuning assumes that musical harmonics are at other than the old two dimensional, sine wave model of whole number frequency ratios. LucyTunings are derived from Large (L) and small (s) intervals related to Pi.

$L = 2^{(1/(2\pi))} = 1.11633$  or 190.9858 cents

i.e. the radian angle of one revolution = one octave.

$s = (2/(2^{(1/(2\pi))})^5)^{(1/2)} = 1.073344$  or 122.5354 cents Octave = 5L+2s. IVth = 3L+s. Vth = 4L+s.

Sharps are from steps of Fifths. Flats from steps of Fourths.

For further details, questions, feedback etc. contact:

Charles Lucy,

LucyScaleDevelopments,

PO Box 2108, Pahoa,

Hawaii, 96778-2108 USA

or phone or fax (808) 965-9341

EMail: hyson@bix.com or on GENIE as JERRYS-GUEST.

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## **First announcement: Computer Music Symposium and Concert**

Sydney, Australia, July 10, 1993

A one-day symposium on computer music will be held in Sydney on Saturday, July 10th, 1993, together with a concert of computer music on the evening of the same day. The symposium will be held in Wesley College, University of Sydney, and the concert in the Old Darlington School, also part of the University of Sydney. The event is held under the auspices of the Australian Computer Music Association; the organizing committee consists of Anthony Hood, Fiona Allan and Gordon Monro.

Offers of papers are hereby solicited. Topics can cover any area of computer music, including (but not limited to) sound analysis and synthesis, real-time manipulation of sound, spatialization of sound, algorithmic composition, musical structure in computer music, and performance practice. Please contact:

Gordon Monro  
School of Mathematics and Statistics  
University of Sydney F07  
NSW 2006  
tel: (02)-692-3814 (W) or (02)-909-2366 (H);  
fax: (02)-692-4534;  
email (Internet): monro\_g@maths.su.oz.au

Deadline for offers of papers: 31st May, but earlier expressions of interest are encouraged.

Music submissions for the concert are also solicited.  
Please contact:

Anthony Hood  
1 Kellaway St  
East Ryde NSW 2113  
tel: (02)-882-8343 (W) or (02)-906-8076 (H);  
fax: (02)-428-1734;  
email (Internet): ianf@extro.su.oz.au

The concert is planned to contain both old and new pieces, so pieces that have already been publicly played are welcome. Deadline for offers of music: 30th April.

Registration fees (please make cheques payable to ACMA Sydney):

	Before May 31	After May 31
ACMA members	\$35	\$45
non-ACMA members	\$45	\$55
students	\$35	\$45

Registration includes lunch, morning and afternoon tea at Wesley College on 10th July, a ticket to the concert and a booklet of conference abstracts. Some rooms have been reserved at the College for participants from outside Sydney; the cost will be approximately \$43 for one night,

or \$80 for two nights (single room, bed and breakfast - the price will be a little less for full-time students).

Accommodation arrangements should be made directly with: Wesley College University of Sydney NSW 2006 tel: (02)-565-3333; fax (02)-516-3829

See back page for application form.

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## **Announcing Disc-2 AUDIO**

The second in a series of topic specific CD-ROMs with hundreds of megabytes of applications, source code, and data files has been published by Knowledge Media. Resource Library Disc-2 AUDIO -- a collection of more than 440 Megabytes of popular public domain, shareware, and freeware audio programs. The CD-ROM disc contains several hundred applications, many accompanied with complete source code. The programs are available in both compressed and full expanded formats for use in bulletin boards or to be executed directly from the CD itself. All areas of interest are covered: AU, CD, Converters, Editors, Effects, Generators, Midi, Mixers, MODs, Music, Players, Samplers, SND, Songs, Speech, Trackers, VOC, WAV. All popular computer systems are represented; Amiga, Atari, PC-MSDOS, PC-Windows, Macintosh, Next, SGI, Sun, and UNIX.

Resource Library Disc-2 AUDIO is available now from Knowledge Media for a suggested list price of \$ 24.95.

### **ORDERING:**

Knowledge Media may be contacted by;

PHONE- 1-800-78-CD-ROM  
1-916-872-3826  
FAX 1-916-872-3826  
EMAIL pbenson@cscihp.ecst.csuchico.edu  
U.S. MAIL 436 Nunneley Rd.  
Paradise, CA 95969  
PRICE \$ 24.95  
SHIPPING & HANDLING- U.S. \$ 5.00  
Foreign Air Mail \$ 10.00  
Foreign Express 15.00

### **PAYMENT:**

VISA or Master Charge  
Name as it appears on the Card  
Expiration Date on Card  
Card Number

C.O.D. Add \$ 5.00 to cover costs of COD handling  
Pre Payment  
California Residents add Tax  
PLEASE INCLUDE YOUR ADDRESS IN ALL  
ORDERS !!

Other Discs available:

Resource Library Disc-1 GRAPHICS: A collection of more than 426 Megabytes of popular public domain, shareware, and freeware graphics programs.

## **Composition Competition**

**15th International competition of electroacoustic, analogue and digital music**

FONDAZIONE RUSSOLO-PRATELLA  
Varese Regione Lombardia -  
Ass. Cultura e Informazioni  
Amministrazione Prov. Ass. Cultura  
Comune di Varese - Ass. Cultura  
CARIPLO  
G.M.E.M. di Marsiglia

### **RULES**

1 - The Russolo-Pratella Foundation of Varese to honour the memory of the futurist composer Luigi Russolo (1885/1947) in the 80th anniversary of his Manifesto "The art of noises", organizes with the honorary presidency of Pierre Schaeffer, the 15th edition of the International Competition of electroacoustic, analogue and digital music. The competition is open to Italian and foreign composers up to the age of 35.

2 - Each competitor can take part with one or more compositions telling exactly the chosen category:

a) analogue or digital electroacoustic music

b) electroacoustic music with instruments or voice

c) electroacoustic music for the radio.

3 - Each competitor must send his written application to the Russolo-Pratella Foundation, Via Bagaini 6, 21100 Varese Italy, before 31 July 1993.

The answer must be accompanied by a personal photo, a birth certificate and a short artistic curriculum.

4 - The composition, on recording-tape in bobbin (speed 19/38 ips) or DAT, for a maximum length of 15 minutes, must have a short description of the work and, if it's possible, the score. They must arrive at the Foundation Secretary, free of cost, before 31 August 1993.

5 - Each cassette-cover must indicate: the title of the composition, the tape speed, the time length and any other information related to the listening.

6 - This material will not be returned and will become part of the archives of the Russolo-Pratella Foundation. Moreover the Foundation reserves itself the right to use this material for the public auditions even outside its office residence.

7 - The Foundation doesn't think it's right to provide the Competition with a money premium but to publish a CD.

In this CD will be inserted the first piece classed in each category and eventually other pieces pointed out from the Jury.

a) There will be a certificate of specialization for the first 3 classified of each category.

b) Each competitor with his piece inserted in the CD will have 50 copies free, carriage forward. The other competitors with the certificate of specialization will have 20 copies free.

c) The realized CD will be successively sent to Institutes, Research Centers, Radio, and specialized magazines.

d) The G.M.E.M. of Marsiglia will give among the competitors 1 scholarship for a month to work in this glamorous Research Center.

8 - The International Jury, presided by G. Franco Maffina of the Russolo-Pratella Foundation is composed of:

CHRISTIAN CALON (Canada)

- composer and musical director G.M.E.M. of Marsiglia

ROBERT DIKMANN (Switzerland)

- composer and musical assistant R.T.S.I. of Lugano

TZEVETAN DOBREV (Bulgaria)

- composer

JURAI DURIS (Slovakia)

- composer and sound engineer E.M.S. of Radio Bratislava

CARLO FERRARIO (Italy)

- composer and responsible for Ass. Cultura Regione  
Lombardia

G. FELICE FUGAZZA

- composer and reporter

RISZARD SZEREMETA (Poland)

- composer and director, Electronic Music Studio of Radio  
Varsavia

LOTHAR VOIGTLANDER (Germany)

- composer

ROSSANA MAGGIA

- coordinator and P.R.

9 - The Jury sittings, the ceremony of prize-giving and the performance of the selected works will take place at the Civico Liceo Musicale, in Varese. The Jury resolutions will be immediately announced to the competitors and to the means of communications.

10 - For further information write to or phone

Russolo Pratella, Foundation -

Via Bagaini,

6 - 21100 Varese (Italy) -

Tel. (0332) 237 245

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## TIME Database to be On-line Fall 1993

A comprehensive database of music instructional software will be available on the Internet beginning in Fall 1993. The TIME (Technology in Music Education) database is a project of the Institute for Music Research at the University of Texas at San Antonio. TIME will include publisher's descriptions and independent reviews of all types of music instructional software as well as availability information. TIME may be searched free, by persons with access to the Internet. In addition to the software database, IMR will serve as a repository of music instruction software which may be viewed by potential users. TIME will be a part of IMR's electronic bulletin board system MERATIS (Music Education, Research, and Technology Information Service).

Contributions of software lists, software reviews, and software to be included in the project are being solicited. All contributions will be properly credited in the database. If you wish to contribute software, software descriptions, or software reviews or you wish to receive log-on instructions when the system goes online, contact the project coordinator:

Kimberly C. Walls, Ph.D.  
Institute for Music Research  
The University of Texas at San Antonio  
6900 North Loop 1604 W.  
San Antonio, TX 78249  
Phone: (210) 691-5321  
Internet: kwalls@lonestar.utsa.edu

### Publishers' Information Form Levels of Participation

1. Listing only. Product's name and availability. Listings obtained from publisher and/or independent sources.
2. Listing with independent review. Same as #1 with product review contributed by independent reviewer. Reviews will describe product and its potential educational uses.
3. Listing, independent review, and publisher's description. Same as #2 with publisher's description of product. Requires that publisher sends product or product demo to IMR to be reviewed independently. Publisher's descriptions may be contributed as hard copy, Mac, or MS-DOS text formats.
4. Listing, independent review, publisher's description, and archiving of product. Same as #3 with product being available for downloading by bulletin board users. This option is appropriate for shareware and demo programs. Requires that publisher send product or product demo with permission to be downloadable from the Internet.

### How to Participate

1. Choose the level of participation.
2. Send materials to IMR. Send listings of products and

publisher's descriptions either in hard copy, 3 1/2" diskette (Mac or MS-DOS), or over the Internet to the project coordinator. See "Desired Information" for items to include in information listings. Publisher's descriptions should be no more than 500 words per product. Send products to be reviewed and/or archived to the project coordinator along with a letter giving permission for desired use of product. (As in level 3 or 4.) If you wish to have products returned to you, send the coordinator a self-addressed mailer with appropriate postage paid.

3. Keep information updated. As your product is updated or new products become available, send us the new information and/or products so that we may keep our database current.

### Desired Information

1. Product name/title
  2. Publication date
  3. Version #
  4. Publisher name
  5. Author/programmer's name(s)
  6. Hardware requirements (Type of computer, MIDI, peripherals, etc.)
  7. Publisher's description (500 words max per product)
- 

## Bol Processor version 2.4

Bol Processor BP2 version 2.4 running on Macintosh under System 7 is now available. The Bol Processor was first developed to simulate improvisatory techniques used by Indian tabla players. The present version is oriented towards computer music. BP2 deals with "sound-objects" handled at the symbolic level (strings, tables, etc.) and at the lower level of "elementary events" (MIDI messages). Sound-objects have metrical/topological properties used for calculating their actual physical states.

Bol Processor may be operated and synchronized by instructions received from its MIDI interface. Shareware money spent on technical documentation made it possible to develop a new version with advanced technical features. Users will first appreciate the difference in the interface (allowing to customize environment for each project) and safe memory management. (Many bugs have been fixed thanks to the collaboration of beta-users...)

This version introduces many important features, among which:

- 1) "Input objects": it is possible to synchronize performance on predefined MIDI sequences of events. (This is similar to interactivity in Matthews' MAX software)
- 2) Time quantization at the symbolic level maintaining the sequentiality of events. You set the time accuracy you want and BP2 will optimize its work space.
- 3) A full development of the concept of "smooth time": instead of controlling time from the internal clock

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(metronome) you may define a hierarchy of "time-objects" handling durations. These may also be entered from notes played on a MIDI instrument. (Play computer-generated pieces in the style of P. Badura Skoda if you can convince him to sit at your MIDI keyboard!) Now the full documentation is supplied to all users (including non-registered). It contains many examples, among which Mozart's musical dice game producing impressive never-heard pieces, grammars producing sound sequences in the style of traditional bell tunes, and a difficult polyrhythmic construction used for reciting Victor Hugo's poem "Les Djinns"...

Bol Processor BP2 runs on all Macintosh computers hooked to a MIDI interface. Three files will be sent on request:

- 1) a short introduction with bibliographical references. (Size 9K)
  - 2) the software itself in a self-extracting archive converted to BinHex 4 format. You need either BinHex or Compact Pro to retrieve it. (Size 360K)
  - 3) the (80-page) full documentation as a (self-extracting archived) Word 4 file in BinHex 4 format. (Size 310K)
- If you have problems receiving large files we can slice them as per your mailer's requirement.

Acquiring this software does not mean that you intend to become a registered user. Storing the e-mail addresses of all one-day users is helpful in keeping them informed about new developments. For this reason we prefer to distribute this software rather than make it available from "anonymous ftp" sites. Versions still available in "ftp" sites are older than the current one.

I might soon be forced to interrupt e-mail for a while because of a planned appointment in a remote place, in which case (snailmail) communication will be restricted to registered users.

Contact:  
bel@grtc.cnrs-mrs.fr  
Bernard Bel  
GRTC, CNRS  
31 ch. J. Aiguier

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## Computed Art Workshop

Exploring Software as a Creative Medium  
Simon Fraser University  
Vancouver, BC Canada  
June 28 - July 17, 1993

The School for the Contemporary Arts Summer Institute presents a three-week practical workshop dealing with issues related to the creation of computer-based artwork. Focusing on software as a creative medium rather than treating the computer as simply a tool, COMPUTED ART seeks to investigate software's fundamental relationship to contemporary technology from a creative perspective.

COMPUTED ART is intended for composers, visual artists, lighting designers, choreographers and others involved with contemporary creative arts. Introductory and advanced seminars are open to artists with a range of computer experience. Theoretical and practical seminars address topics including cybernetic behaviour, virtual reality, authorship, gender and technology, and interactive performance.

Organized around an Open Studio environment, participants have access to personal workstations and an array of audio, graphics, and lighting peripherals. The workshop focuses on SGI, Macintosh, and Atari computers, FORTH and MAX programming languages, LIFEFORMS choreographic software, and VERTIGO animation software.

COMPUTED ART addresses computer technology as a mature and significant medium for artistic creation. Emphasis is placed on participants' own work in an attempt to foster better understanding of differing approaches to artistic creation while at the same time considering technology's place in contemporary art practice.

### Faculty:

Daniel Scheidt - interactive music systems  
George Lewis - music, computer-controlled installations  
Martin Gotfrid - scoring and sound design  
Sang Mah - graphics and animation  
Thecla Schiphorst - computer choreography

COMPUTED ART is held at the spectacular Burnaby Mountain campus of Simon Fraser University in Vancouver, Canada.

Fee: \$750.00 (includes accommodation -- limited scholarship funds are available)

### For further information contact:

Tanya Petreman,  
Contemporary Arts  
Simon Fraser University  
Burnaby, BC Canada V5A 1S6  
phone: (604) 291-4672  
fax: (604) 291-5907  
email: Tanya\_Petreman@sfu.ca

or: Daniel Scheidt  
djs@scheidt.wimsey.bc.ca

## Assemblage Five

Performances 4 & 5

Sat 1st & Sun 2nd May  
7.00 pm

Beckett Theatre, Malthouse  
113 Sturt Street  
South Melbourne

Music/Dance performance featuring  
video to MIDI interface for live  
interaction between computer and  
dancer.

*Sponsored by Ausdance.*

## New Musicales

*New-Music Series at  
Linden Gallery*

St Kilda Arts Centre  
Acland Street

6.30 pm 1st Saturday of  
Every Month

For details phone:  
(03) 417 3001

### ACMA Contact List

To contact any of the persons mentioned in this issue or  
for any other information, feel free to write to us at our  
new address:

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Alternately, you may wish to contact us individually on  
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### 1993 ACMA Committee

President: David Hirst

Vice-President: Michael Hewes

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