# Vect-X

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# Contents

# Chapter 1

# Vect-X

## 1.1 Author of Vect-X

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My other MIDI Software

Sample-X: A powerful MIDI driven sample player (AHI based)
Vect-X: A cool arpeggiator indispensable to every MIDI Amiga user :-)

## 1.2 Welcome page for Vect-X

Vect-X
Version 1.0

A MIDI Vector Controller
for the Amiga



CONTENTS

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## 1.3 Disclaimer

NO WARRANTY
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The author cannot be held responsible for any loss of data or damage occurring directly or indirectly from use of this program. The user understands this declaration before using this program on his or her computer system.

## 1.4 The motive behind Sample-X

Vect-X is a simple MIDI tool which allows cross-modulation of four sounds playing through a MIDI device.

Well, I got fed up of being limited to layering just two sounds. I wanted a huge sound over which I could express a lot of control. Hence Vect-X was born. I could say I was inspired by the Yamaha SY35 or the Korg WaveStation keyboards with their miniature joysticks, but I've never played any of them. Anyway, I do like the new sounds coming out of my TG300 now that Vect-X is hooked up!!!

Bye

Sheun Olatunbosun 11-11-97

## 1.5 Register

Okay, there's nothing for you here. The program is absolutely free ↩
. Once
again, send
me
some email. I'm just interested in getting some feedback from you Amiga musicians out there. So what are you waiting for?

## 1.6 System requirements

Vect-X requires Workbench 2.04+ and a MIDI interface. You'll also need an a MIDI instrument. Any tone generator or synth will do, although you'll get more mileage out of one which is at least 4 part multitimbral.

The midi.library is also required.

## 1.7 Features

Vect-X has the following features

- 4 vectors (or MIDI channels) in operation
- Configurable vector to MIDI channel
- Variable modulation parameter (ie volume, pan, reverb)
- Intuitive joystick action
- Clear GUI feedback
- Retargettable MIDI ports

## 1.8 Getting Started

Run the installation script which simply copies the "newtopaz" font to your FONTS directory (this font is so much nicer than the default Workbench one).

You can start Vect-X from the CLI by entering 'Vect-X' or double clicking on its icon from Workbench. Vect-X will then attempt to open on an available public screen, This is typically the Workbench screen. You are greeted by one window entitled 'Vector Control'.

If Vect-X fails to start then make sure that you have the midi.library installed in the LIBS: directory and the newtopaz font in the FONTS:

Hook up your MIDI equipment and configure it so that you have four different sounds playing on channels 1 to 4. Use sounds with long sustains such as pads, strings and organs to hear the effect of Vect-X in this simple demonstration. Now, try holding down a few notes on your keyboard/synth... and at the same time move around the Vect-X joystick which appears as a square inside the diamond shape. Four the four sounds, you should hear a morphing effect which varies according to the joystick's position.

That's it! But it sounds great hey :-)

Right, all that remains is to explain the meaning of the various features in the vector~control window. Check out the sample I created with my TG300 synth. It took me seconds to create it.

Happy morphing.

HINTS

Try working first with just two sounds to see how they interact. Then add the third and fourth sounds. Getting something useful by throwing four sounds together from scratch can be a hit-or-miss affair.

Use, use, use those FX! You can get some really monstrous stuff with some delay, reverb or chorus thrown in. Your GM tone generator will never sound the same again.

Hook up a sequencer to play note loops (or manually play them yourself if you're that way inclined). Now you can use percussive sounds which will constantly be heard because they are continuously retriggered. In fact, you could use a sequencer to record joystick movements as well. Look! No hands!!

Modulation doesn't have to be volume change. Try using control numbers of 10 (panning), 91 (reverb), or 93 (chorus) for completely off-the-wall sounds. Check your user manual for other control numbers to manipulate filter settings, LFO's and amplitude envelopes.

## 1.9 The appearance of Vect-X

JOYSTICK

The diamond area containing the small square represents the joystick. This is the main focus of Vect-X. Move the joystick around to hear how it affects sounds played through 4 MIDI channels.

X-Y Talk

This ticked button causes Vect-X to act in two different modes.

With no tick present, horizontal and vertical movements are independent. Forcing one vector to have a high value will cause one other vector to have a low value and leave the remaining two unaffected. The audible result is that three sounds can usually be heard. This setting is useful for subtle modulation.

With the tick present, horizontal and vertical movements are linked. Forcing one vector high causes the other three to go low. This happens when the joystick is moved to one of the diamond corners and the audible result is that one vector's sound can be heard in isolation. This setting can therefore introduce strong modulation.

Ctrl #

This box specifies which MIDI controller value to change on the four MIDI channels. By default it is set to 7 which corresponds to volume. A value of 10 would cause the joystick to affect the panning position of played sounds. Please consult your keyboard manual or a standard MIDI book to find out about other controller values.

MIDI in

Vect-X by default takes its input from the Amiga serial port. However specifying the name of another port allows its MIDI input to come from another program such as a sequencer.

Vect-X requires a MIDI input port so that it can duplicate a note played on one MIDI channel to the other three MIDI channels. It also duplicates other data such as pitch-bend.

MIDI out

By default, Vect-X sends its output to the Amiga serial port. However specifying the name of another port allows its MIDI output, including the joystick information, to go to another program. This is incredibly handy for recording joystick movements in a sequencer.

VECTORS

Sliders

These sliders reflect the magnitude values of the 4 vectors. They are for display purposes only and they cannot be changed. Anyway, simultaneous manipulation all oft hem is achieved via the joystick.

Vector channels & MIDI chan

The radio buttons (the stacked circular buttons) under the sliders indicate the currently selected vector. When another vector is selected, the MIDI chan buttons will update to show which MIDI channel is linked to that particular vector. You alter a vector's MIDI channel by selecting another MIDI Chan radio button. If you select a MIDI channel which is already in use by another vector, then you will not see any update.

## 1.10 Glossary

Some important terms appearing in documentation.

MIDI

Musical Instrument Digital Interface. A protocol used between hardware units for the transfer of notes and other messages relating to musical information.

MIDI channel

This is one of the sixteen lines on which notes can be transmitted. Each line has a note span of 128 notes or different pitches and each one has its own parameters such as volume, panning and pitch-bend. This permits an arrangement where each channel can trigger a different musical instrument.

## 1.11 Acknowledgements

A sincere thank you goes from me to the following people whose tools have helped to spur productivity in the Amiga development community.

Edd Dumbill
The author of the AmigaGuide editor which has made it easier for me to enter this documentation.

Michael Sinz
For the excellent (do not code at home without it!) Enforcer tool

Matt Dillon
For the DICE compiler.

Jan van den Baard
Whose GadToolsBox program was at the heart of the Vect-X GUI creation.

Bill Barton
For the midi.library. Saved me the headache of interpreting MIDI messages on the serial line.

## 1.12 Bug Report

Well I think Vect-X is perfect :-) Nah seriously though, if you think you've found a bug then let me know so that I can look into it straight away. Please help me when reporting the bugs by stating the exact procedure of how you caused them to appear. This will help me immensely in determining how the bug occurred.

I can be contacted through

email: sheun@soi.city.ac.uk

Known bugs

None.

## 1.13 Copyright



## 1.14 Distribution

This software is freeware and it may be freely distributed so long as the archive continues to hold the files in listing.doc. Charging for the software should not be significantly more than the cost incurred from distributing the media. The author grants the right for Vect-X to appear on a magazine cover (floppy) disk or any compact disc collection with the premise being that he is notified of such action.