



cynth**CART** 64

ANALOGUE SYNTHESIZER

SPECIAL THANKS TO **SIEM APPELMAN**
DESIGNED BY PAUL SLOCUM & MANUFACTURED BY SHAREWARE PLUS
WWW.QOTILE.NET

CYNTHCART

Cynthcart is a cartridge for the Commodore 64/128 that turns the computer into a standalone analog synthesizer. Cynthcart's key-command user interface allows it to be played and controlled without a monitor, making it especially suitable for live performance.

The original Commodore 64 piano keyboard overlay can be used and Datel, Passport, Sequential, and Kerberos MIDI interface cartridges are now supported.

FEATURES

- ✓ 30 preset sound patches
- ✓ Arpeggiator, portamento, vibrato, and tremolo effects
- ✓ Realtime control and modulation of the analog filter
- ✓ Controls for attack, release, tuning, and many other sound parameters
- ✓ MIDI support including pitch bend, patch changes, and continuous controllers
- ✓ On-screen help
- ✓ Color visualizer display
- ✓ Mono stack, 3-voice mode, and 6-voice mode (with second SID)
- ✓ SID hex editor for advanced users
- ✓ Ability to turn off video chip to reduce noise
- ✓ PAL and NTSC pitch tables with automatic selection
- ✓ Copies itself to RAM (cartridge can be removed after loading)

SUPPORTED ACCESSORIES

- ✓ The Commodore 64 piano keyboard overlay
- ✓ Datel, Passport, Sequential, and Kerberos MIDI interface cartridges
- ✓ Paddle controllers in port 2 for filter, pulse width, vibrato, and pitch
- ✓ SIDCart and some versions of SID Symphony (2nd SID chip at address \$DF00)

SID HEX EDITOR

The SID editor allows advanced users to modify SID registers directly. Press RUNSTOP+F1 to enter SID HEX editing mode. Use keys 0-9 and A-F to enter the two digit SID address to modify, followed by the two digit value to write to that address. If the piano keyboard overlay is being used (which covers up the number keys) then start the SID editor in piano keyboard mode by

SOUND MODES

Cynthcart has 16 voicing modes that affect how played notes are distributed to the SID's three voices. The sound mode can be selected with the keyboard or through MIDI continuous controller #2. When a second SID chip is installed, all the modes use a stereo chorus effect except for the 6-voice polyphonic mode.

| NAME | DESCRIPTION | NAME | DESCRIPTION |
|-------|------------------------------|--------|---------------------------------|
| POLY | Default 3-voice polyphonic | MONOP1 | 3-voice mono1 w/ portamento |
| 5TH5 | Polyphonic with added 5th | MONOP2 | 3-voice mono2 w/ portamento |
| SPORT | Poly portamento with 5th | ARP1 | Arpeggiator up fast |
| PORT1 | Poly portamento Slow | ARP2 | Arpeggiator up med |
| PORT2 | Poly portamento Fast | ARP3 | Arpeggiator up slow |
| PORT3 | Poly portamento Faster | ARP4 | Arpeggiator down med |
| MONO1 | 3-voice mono w/ octave shift | ARP5 | Arpeggiator down fast |
| MONO2 | 3-voice monophonic | 6CHAN | 6-voice poly (requires 2nd SID) |

MODULATION MODES

Modulation modes are preset configurations of an LFO or envelope tied to the filter cutoff or pulse width. Modulation modes can be selected with key commands or through MIDI continuous controller #3. Note that PULS1 and PULS2 will only affect sounds that use the pulse waveform.

| NAME | DESCRIPTION | NAME | DESCRIPTION |
|-------|-------------------------------|-------|--------------------------|
| NONE | FX off | FILT4 | Square LFO - Filter |
| FILT1 | Slow LFO | FILT5 | Fast Square LFO - Filter |
| FILT2 | Slow Rising Envelope - Filter | PULS1 | Slow LFO - Pulse Width |
| FILT3 | Fast Drop Envelope - Filter | PULS2 | Rising Env - Pulse Width |

pressing RUNSTOP+F7 and use the black piano keys for 0-9 and the center white piano keys for A-F. The editor includes five special addresses (\$22-\$26) that simultaneously set all three SID oscillator registers to the same value. A customized patch can be saved by pressing RUNSTOP+F3, and that patch can later be recalled by pressing the *←* key.

