



CDP Release 8 – New Additions

CDP's eighth software release (2023) introduces over 70 new processes, covering a wide variety of spectral, multi-channel, segmentation, wavetable and synth functions, among others. Some are updates or alternatives to previous processes; some are at the more 'experimental' end of sound processing.

All of the new (documented) processes have been assigned to the various Function Groups. You can view them in detail from within the HTML documentation: see the Home Page for links.

Edit Soundfile:

ENVCUT Cut sound into elements with falling envelope
WAVEFORM Generate a wavetable from existing sound

Envelope:

FLATTEN Equalise level of sound elements
SPIKE Envelope the sound to spike at the peak
TREMENV Tremolo a sound, with width narrowed after peak

Extend/Segment:

DVDWIND Shorten a sound by read, skip, read, skip procedure
BOUNCE 'Bounce' a sound: accelerating repeats, decaying in level
ENVSPEAK Process speech 'syllables'
HOVER2 Move through a file, zigzag reading it at a given frequency, with inverted copies
MOTOR Create faster pulse-stream within slower pulsed envelope
PULSER Iterate a sound to create a stream of enveloped & pitched sound-packets
REPEATER Play source, with specified elements repeating
ROTOR Generate note-sets that grow and shrink in pitch-range and speed
SORTER Chop sound into elements, then reorganise by loudness or duration
STUTTER Randomly repeat segments cut from elements
TESSELATE Create repeating patterns with shift in space and time

Filter:

PHASOR Introduce phasing into (mono) signal

Housekeep:

PAIREX Extract any pair of channels from a multichannel sound
REPAIR Join a list of mono sounds into stereo or multi-channel outputs
TOSTEREO Diverge from mono to stereo, in a stereo file

Modify:

VERGES Play source, with specified brief moments glissing up or down

Multi-channel:

BROWNIAN Generate texture of sampled elements following brownian motion in pitch and space
CASCADE Successive segments are repeat-echoed, and the echo-sets are superimposed on the source
CRUMBLE Project segments spatially over progressively smaller groups of channels
CRYSTAL Generate sound-events based on the position of vertices of a crystal, then rotate the crystal in 3-D space, etc.
SPIN STEREO Spin a wide stereo image across stereo / multichannel space, with possible doppler-shift



SPIN QUAD Spin two wide stereo-images across a 5-channel-wide sound image

Pitch-sync Grains:

FOFEX EXTRACT Extract FOFs to a file or to separate soundfiles

FOFEX CONSTRUCT Superimpose FOFs to make output FOF

TWEET Replace FOFs in vocal sound by synthetic tweets or noise

PVOC:

ANA2PVX Convert CDP analysis file (.ana) to PVOC-EX file (.pvx)

PVOCEX2 Stereo phase vocoder based on CARL pvoc (Mark Dolson)

FTURANAL ANAL Extract spectral features from an analysis file and output to a textfile

FTURANAL SYNTH Use spectral features data to reassemble MONO source file

SPECTRAL:

Blur:

CALTRAIN Time-blur the upper spectral channels

SUPPRESS PARTIALS Suppress the most prominent partials in the frequency band indicated

Focus:

SPECFOLD Fold, invert or randomise the spectrum

Formants:

SPECENV Extract the spectral envelope of file 2 and apply it to file 1

SPECFNU Modify spectral shape in relation to formant peaks, or show formant data (23 functions)

Specnu:

FRACTAL SPECTRUM Fractally distort spectrum by transposition

SPECULATE Generate versions of source with channel data progressively permuted

MATRIX Matrix manipulation of spectrum of sound

Pitch:

SPECTUNE Find most prominent pitch and transpose file to it

Stretch:

SPECTSTR Time-stretch analysis file, suppressing artefacts when stretch > 1

Synthesis:

CLICKNEW Make clicktrack using times listed in textfile

IMPULSE Create a stream of impulses

MULTIOSC Nested FM-style oscillations

MULTISYNTH Synthesize several sound-streams from a score

NEWSCALES Synthesise a series of short tones with defined frequency and timbre

NEWSYNTH Synthesise complex spectra (new modes)

PULSER SYNTH Iterate synthesized wave-packets defined by partials data

SYNFILT Noise filtered by time-varying filterbank, with time-variable Q

SYNSPLINE Synthesise waveforms by smoothly joining randomly generated points

TS OSCIL Create sound from time-series text data

TS TRACE Create sound from time-series data treated as a pitch-trace

TSCONVERT Convert input data to specified range and format

