CDP Release 7.0 Function Reference Chart

NB: The new 'separate' programs of Releases 5, 6 & 7 are now woven into the Groups below to help indicate what they do. However, they are separate programs and *not sub-modules within the Group module name*. This affects those using the programs from the Command Line or Terminal. For example, when you type 'filter' you will see a list of all the modules it contains, such as 'bank bankfrqs …' and the command line begins 'filter bank' etc.. You will not see 'filtrage', which is a new Release 7 separate program. To use this program, you just type 'filtrage' and the command line begins 'filtrage filtrage' etc. The double-name format is retained for technical reasons. **All these separate programs are listed below within square brackets '[…]'**. The new Release 7 programs are also underlined in this edition.

CDP-FOCUS – focusing & defocusing of sonic material

FUNCTION	INFILETYPE	MODES	MODE DESCRIPTION	FUNCTION DESCRIPTION
GROUP BLUR [SD]:				
AVRG	ANALFILE	0		Average spectral energy over *N* adjacent channels.
BLUR	ANALFILE	0		Time-average the spectrum.
CHORUS	ANALFILE	7	(1) SCATTER AMPS	Chorus effect by randomising amplitudes &/or frequencies of partials.
			(2) SCATTER FRQS	
			(3) SCATTER FRQS UP	
			(4) SCATTER FRQS DOWN	
			(5) SCATTER AMPS & FRQS	
			(6) SCATTER AMPS,& FRQS UP	
			(7) SCATTER AMPS,& FRQS DOWN	
DRUNK	ANALFILE	0		Modify sound by drunken walk along analysis windows.
NOISE	ANALFILE	0		Put noise in the spectrum.
SCATTER	ANALFILE	0		Randomly thin out the spectrum.
SHUFFLE	ANALFILE	0		Shuffle order of analysis windows in file.
SPREAD	ANALFILE	0		Spread peaks of spectrum, introducing controlled noisiness.
SUPPRESS	ANALFILE	0		Suppress *N* loudest partials (on a window-by-window basis).
WEAVE	ANALFILE	0		Modify sound by weaving amongst analysis windows.
GROUP FILTER [TD]:				
BANK	SNDFILE	6	(1) HARMONICS	Bank of filters, with time-variable Q.
			(2) ALTERNATE HARMONICS	
			(3) SUBHARMONICS	
			(4) HARMONICS WITH OFFSET	
			(5) FIXED NUMBER OF BANDS	

			(6) FIXED INTERVAL BETWEEN	
BANKFRQS	SNDFILE	6	(1) HARMONICS	Generate list of frequencies for use in a filterbank.
			(2) ALTERNATE HARMONICS	
			(3) SUBHARMONICS	
			(4) HARMONICS WITH OFFSET	
			(5) FIXED NUMBER OF BANDS	
			(6) FIXED INTERVAL BETWEEN	
[FILTRAGE]	SNDFILE	2	(1) FIXED FILTER	Generate randomised VARIBANK filterbank files.
			(2) TIME-VARYING FILTER	
FIXED	SNDFILE	3	(1) BOOST-OR-CUT BELOW FRQ	Cut or boost - above, below or around a given frequency.
			(2) BOOST-OR-CUT ABOVE FRQ	
			(3) BOOST-OR-CUT AROUND FRQ	
ITERATED	SNDFILE	2	(1) BANDS AS FRQ (HZ)	Iterate sound, with cumulative filtering by a filterbank.
			(2) BANDS AS MIDI	
LOHI	SNDFILE	2	(1) BANDS AS FRQ (HZ)	Fixed low pass or high pass filter.
			(2) BANDS AS MIDI	
PHASING	SNDFILE	2	(1) PHASE SHIFT FILTER	Phase shift sound, or produce 'phasing' effect.
			(2) PHASING EFFECT	
SWEEPING	SNDFILE	4	(1) HIGH PASS	Filter whose focus-frequency sweeps over a range.
			(2) LOW PASS	
			(3) BAND PASS	
			(4) NOTCH	
USERBANK	SNDFILE	2	(1) BANDS AS FRQ (HZ)	User-defined filterbank, with time-variable Q.
			(2) BANDS AS MIDI	
VARIABLE	SNDFILE	4	(1) HIGH PASS	Lopass, hipass, bandpass, or notch filter of variable frequency.
			(2) LOW PASS	
			(3) BAND PASS	
			(4) NOTCH	
VARIBANK	SNDFILE	2	(1) BANDS AS FRQ (HZ)	User-defined time-varying filterbank, with time-variable Q.
			(2) BANDS AS MIDI	
VARIBANK2	SNDFILE	2	(1) BANDS AS FRQ (HZ)	User-defined time-varying filterbank, with time-variable Q and partials.
			(2) BANDS AS MIDI	
VFILTERS	SNDFILE	0		Make (text) datafiles for fixed-pitch FILTER VARIBANK filters.

GROUP FOCUS [SD]:

ACCU	ANALFILE	0		Sustain spectral bands, until louder data appears in band.
EXAG	ANALFILE	0		Exaggerate spectral contour.
FOCUS	ANALFILE	0		Focus spectral energy onto peaks in spectrum.
FOLD	ANALFILE	0		Octave-transpose spectral components into specified range.
FREEZE	ANALFILE	3	(1) AMPLITUDES	Freeze spectral characteristics in sound, at given times.
			(2) FREQUENCIES	

			(3) AMPS & FRQS	
HOLD	ANALFILE	0		Hold sound spectrum, at given times
STEP	ANALFILE	0		Step-frame, by freezing spectrum at regular time intervals.
[SUPERACCU]	ANALFILE	4	(1) OPERATES LIKE FOCUS ACCU	Sustain each spectral band until louder data appears in that band.
			(2) FORCES TEMPERED RESONANCES	(Tempered scale)
			(3) FRQS IN TUNING FILE	(Like a TEXTURE harmonic set)
			(4) FRQS + OCTAVES IN TUNING FILE	(Like a TEXTURE harmonic field)

GROUP HILITE [SD]:

ARPEG	ANALFILE	8	(1) ON	Arpeggiate the spectrum.
			(2) BOOST	
			(3) BOOST BELOW	
			(4) BOOST ABOVE	
			(5) ON BELOW	
			(6) ON ABOVE	
			(7) ONCE BELOW	
			(8) ONCE ABOVE	
BAND	ANALFILE	0		Split spectrum into bands & process these individually.
BLTR	ANALFILE	0		Time-average, and trace, the spectrum.
FILTER	ANALFILE	12	(1) HIGH PASS	Filter the spectrum.
			(2) HIGH PASS NORMALISED	
			(3) LOW PASS	
			(4) LOW PASS NORMALISED	
			(5) HIGH PASS WITH GAIN	
			(6) LOW PASS WITH GAIN	
			(7) BANDPASS	
			(8) BANDPASS NORMALISED	
			(9) NOTCH	
			(10) NOTCH NORMALISED	
			(11) BANDPASS WITH GAIN	
			(12) NOTCH WITH GAIN	
GREQ	ANALFILE	2	(1) STANDARD BANDWIDTH	Graphic eq on spectrum.
			(2) VARIOUS BANDWIDTHS	
PLUCK	ANALFILE	0		Emphasise spectral changes (use e.g. with HILITE ARPEG).
TRACE	ANALFILE	4	(1) TRACE ALL	Retain *N* loudest partials only (on window-by-window basis).
			(2) TRACE ABOVE FRQ	
			(3) TRACE BELOW FRQ	
			(4) TRACE BETWEEN FRQS	
VOWELS	ANALFILE	0		Impose vowels on a sound.

CDP-MORPH – combinations, morphs & transitions between spectra

FUNCTION	INFILETYPE	MODES	MODE DESCRIPTION	FUNCTION DESCRIPTION
GROUP COMBINE (SPECTRA) [SD]:				
CROSS	ANALFILE	0		Replace channel amplitudes of 1st file with those of 2nd.
DIFF	ANALFILE	0		Find difference of two spectra.
[FASTCONV]	SNDFILE	0		Multi-channel fast convolution.
INTERLEAVE	ANALFILE	0		Interleave windows, *leafsize* windows per leaf.
MAKE	PITCHFILE	0		Generate a spectrum from only pitch & formant data.
MAKE2	PITCHFILE	0		Generate a spectrum from only pitch, formant & envelope data.
MAX	ANALFILE	0		In each channel, in each window, keep maximum amplitude value.
MEAN	ANALFILE	8	(1) MEAN AMP & PITCH	Generate spectral 'mean' of 2 sounds.
			(2) MEAN AMP & FRQ	
			(3) AMP FILE1: MEAN PICH	
			(4) AMP FILE1: MEAN FRQ	
			(5) AMP FILE2: MEAN PICH	
			(6) AMP FILE2: MEAN FRQ	
			(7) MAX AMP: MEAN PITCH	
			(8) MAX AMP: MEAN FRQ	
[SPECTWIN]	ANALFILE	4	(1) FORMANT ENV1 + FORMANT ENV2	Combine formant and/or total spectral envelopes of 2 spectra.
			(2) FORMANT ENV1 + TOTAL ENV2	
			(3) TOTAL ENV1 + FORMANT ENV2	
			(4) TOTAL ENV1 + TOTAL ENV2	
SUM	ANALFILE	0		Find sum of two spectra.
GROUP FORMANTS [SD]:				
GET	ANALFILE	0		Extract evolving formant envelope from an analysis file.
GETSEE	ANALFILE	0		Extract formants from analysis file as 'soundfile' for viewing.
PUT	ANALFILE	2	(1) REPLACE FORMANTS	Impose evolving formants from a formantfile.
			(2) SUPERIMPOSE FORMANTS	
SEE	FORMANTFILE	0		Convert formant data file to 'soundfile' for viewing.
VOCODE	ANALFILE	0		Impose formants extracted from 2nd sound, on 1st sound.
GROUP MORPH [SD]:				
BRIDGE	ANALFILE	6	(1) STANDARD	Interpolate between two time-specified windows in two files.
			(2) OUTLEVEL FOLLOWS MINIMUM	
			(3) OUTLEVEL FOLLOWS FILE1	
			(4) OUTLEVEL FOLLOWS FILE2	
			(5) OUTLEVEL MOVES FROM 1 TO 2	

			(6) OUTLEVEL MOVES FROM 2 TO 1	
GLIDE	ANALFILE	0		Interpolate, linearly, between 2 single analysis windows
MORPH	ANALFILE	2	(1) LINEAR OR CURVED	Morph one spectrum into another.
			(2) COSINUSOIDAL	

NEWMORPH/2 [SD] (Command line: newmorph newmorph OR newmorph newmorph2)

[NEWMORPH]	ANALFILE	7	(1) INTERPOLATE LINEARLY	.Morph between dissimilar spectra.
			(2) INTERPOLATE COSINUSOIDALLY	
			(3) AS MODE 1, CHAN-BY-CHAN	
			(4) AS MODE 2, CHAN-BY-CHAN	
			(5) TUNED TO AVERAGED H-FIELD	
			(6) TUNE TO AVERAGED H-FIELD	
			(7) MORPH, EACH STEP A NEW SFILE	
[NEWMORPH2]	ANALFILE	3	(1) TEXTFILE OF PROMINENT PEAKS	Textfile of prominent peaks OR morph betw dissimilar spectra.
			(2) TUNE TO HARMONIC FIELD	
			(3) DO (2) COSINUSOIDALLY	

GROUP ONEFORM [SD]:

GET	FORMANTFILE	0	Extract formant-envelope at a specific time in a CDP formant file.
PUT	FORMANTFILE	0	Impose single-formant from formants datafile to sound in analysis file.
COMBINE	PITCHFILE & FORMANTFILE	0	Generate a new sound from a pitchfile and a single-moment-formant.

CDP-PITCH – transposition, pitch warping, harmony, tuning, loudness, echo & pan

FUNCTION	INFILETYPE	MODES	MODE DESCRIPTION	FUNCTION DESCRIPTION

GROUP MODIFY [TD]:

BRASSAGE	SNDFILE	7	(1) PITCHSHIFT	Granular reconstitution of soundfile.
			(2) TIMESTRETCH	
			(3) REVERB	
			(4) SCRAMBLE	
			(5) GRANULATE	
			(6) BRASSAGE	
			(7) FULL MONTY	
CONVOLVE	SNDFILE	2	(1) TWO SOUNDFILES ONLY	Convolve the first sound with the second (slow – see FASTCONV)
			(2) ALSO A TRANSPOSITION FILE	
[DSHSIFT]	PANFILE	0		Adds Doppler shift to panning.
FINDPAN	SNDFILE	0		Find stereo-pan position of a sound in a stereo file.
LOUDNESS	SNDFILE	5	(1) GAIN	Alter loudness or balance of sound.
			(2) DB GAIN	

			(3) NORMALISE	
			(4) SET LEVEL	
			(5) BALANCE SRCS	
			(6) INVERT PHASE	
			(7) FIND LOUDEST	
			(8) EQUALISE	
[NEWDELAY]	SNDFILE	0		Delay with pitch-defined output sound.
[PHASE]	SNDFILE	2	(1) INVERT PHASE OF A SOUND	Invert phase or enhance stereo separation of a sound.
			(2) ENHANCE STEREO SEPARATION	
RADICAL	SNDFILE	6	(1) REVERSE	Radically modify the source sound.
			(2) SHRED	
			(3) SCRUB	
			(4) LOWER RESOLUTION	
			(5) RING MODULATE	
			(6) CROSS MODULATE	
REVECHO	SNDFILE	3	(1) DELAY	Add reverberation or echo to the sound.
			(2) VARYING DELAY	
			(3) STADIUM	
SAUSAGE	SNDFILE	0		Brassage on several sources.
SCALEDPAN	SNDFILE	0		Distribute sound in stereo space, scaling pan data to soundfile duration.
SHUDDER	SNDFILE	0		Shudder a stereo file.
SPACE	SNDFILE	4	(1) PAN	Spatialise, or alter spatialisation of, sound.
	SNDFILE		(2) MIRROR	
	BRKFILE		(3) MIRROR PAN	
	SNDFILE		(4) NARROW	
SPACEFORM	SNDFILE	0		Create a sinusoidal spatial distribution data file.
SPEED	SNDFILE	6	(1) SPEED CHANGE	Change speed (& pitch) of sound. (also see BRASSAGE,& REPITCH MENU).
			(2) SPEED CHANGE IN SEMITONES	
			(3) VARISPEED INFO	
			(4) VARISPEED INFO (IN SEMITONES)	
			(5) ACCELERATE	
			(6) VIBRATO	
STACK	SNDFILE	0		Create a mix that stacks transposed versions of the source on top of one another.

GROUP PITCH (& HARMONY) [SD]:

ALTHARMS	ANALFILE	2	(1) DELETE ODD HARMONICS	Delete alternate harmonics.
			(2) DELETE EVEN HARMONICS	
CHORD	ANALFILE	0		Transposed spectra mixed.
CHORDF	ANALFILE	0		Transposed spectra mixed inside original spectral envelope.
OCTMOVE	ANALFILE	3	(1) UP	Octave transpose without formant shift.
			(2) DOWN	

			(3) DOWN WITH BASS BOOST	
PICK	ANALFILE	5	(1) HARMONIC SERIES	Retain only channels which might hold specified partials.
			(2) OCTAVES	
			(3) ODD HARMONICS ONLY	
			(4) LINEAR FRQ STEPS	
			(5) DISPLACED HARMONICS	
TRANSP	ANALFILE	6	(1) 8VA SHIFT UP	Transpose pitch of (part of) spectrum, keeping harmonic relationships.
			(2) 8VA SHIFT DOWN	
			(3) 8VA SHIFT UP AND DOWN	
			(4) SHIFT UP	
			(5) SHIFT DOWN	
			(6) SHIFT UP AND DOWN	
TUNE	ANALFILE	2	(1) TUNINGS AS FRQS	Replace spectral frequencies by harmonics of specified pitch(es).
			(2) TUNINGS AS MIDI	
[TUNEVARY]	ANALFILE	0		Replace spectral frequencies with harmonics of specified pitch(es).

GROUP PSOW (Pitch-synchronised vocal grains) [TD]:

CHOP	SNDFILE	0		Chop soundfile into sections between specified grain-chunks.
CUTATGRAIN	SNDFILE	2	(1) CUT BEFORE SPECIFIED TIME	Cut soundfile at specified time.
			(2) CUT AT & AFTER SPECIFIED TIME	
DELETE	SNDFILE	0		Time-shrink by deleting a proportion of the pitch-sync'd grains.
DUPL	SNDFILE	0		Timestretch/transpose by duplicating the pitch-sync'd grains.
FEATURES	SNDFILE	2	(1) TRANSPOSE WITH PITCHWARP	Impose new features on vocal-type sound.
			(2) TRANSPOSE WITH ADDED PITCH	
GRAB	SNDFILE	0		Grab a pitch-sync'd grain and use to create a new sound.
INTERLEAVE	BRKFILE	0		Interleave FOFs from two different breakpoint files.
INTERP	SNDFILE	0		Interpolate between two GRAB'd pitch-sync'd grains.
LOCATE	SNDFILE	0		Show exact grain-start nearest to specified time.
IMPOSE	SNDFILE	0		Impose vocal FOFs in 1st sound onto the 2nd sound.
[PTOBRK]	PITCHFILE	0		Utility: Convert Binary Pitch Data File to text breakpoint file for PSOW
REINFORCE	SNDFILE	2	(1) REINFORCE HARMONIC CONTENT	Reinforce harmonics.
			(2) REINFORCE WITH INHARMONICS	
REPLACE	SNDFILE	0		Combine FOFs of 1st sound with the pitch of 2nd.
SPACE	SNDFILE	0		Distribute the alternate FOFs over a stereo space.
SPLIT	SNDFILE	0		Split vocal FOFs into subharmonic & upward pitch.
STRETCH	SNDFILE	0		Time-stretch/transpose by repositioning pitch-sync'd grains.
STRTRANS	SNDFILE	0		Time-stretch/transpose by repositioning, with overlap.
SUSTAIN	SNDFILE	0		Sustain a pitch-sync'd FOF within a sound.
SUSTAIN2	SNDFILE	0		Sustain an explicitly specific pitch-sync'd FOF within a sound.
SYNTH	SNDFILE	5	(1) FIXED FREQUENCY BANDS	Impose vocal FOFs on a stream of synthesised sound.
			(2) FIXED MIDI BANDS	

			(3) VARIABLE FREQUENCY BANDS	
			(4) VARIABLE MIDI BANDS	
			(5) NOISE	

GROUP REPITCH [SD]:

ANALENV	ANALFILE	0		Extract the window-loudness envelope of an analysis file.
APPROX	PITCHFILE	2	(1) PITCH DATA OUT	Make an approximate copy of pitch in a pitch datafile.
			(2) TRANSPOSITION DATA OUT	
COMBINE	PITCHFILE or TRANSPOSEFILE	3	(1) PITCH+PITCH TO TRANSPOS	Pitch+Pitch->Transposition, P+T->P, T+T->T
			(2) PITCH+TRANSPOS TO PITCH	
			(3) TRANSPOS+TRANS TO TRANS	
COMBINEB	PITCHFILE or TRANSPOSEFILE	3	(1) PITCH+PITCH TO TRANSPOS	Pitch+Pitch->Transposition, P+T->P, T+T->T
			(2) PITCH+TRANSPOS TO PITCH	
			(3) TRANSPOS+TRANS TO TRANS	
CUT	PITCHFILE	3	(1) FROM STARTTIME	Cut out and keep a segment of a pitch datafile.
			(2) TO ENDTIME	
			(3) BETWEEN TIMES	
EXAG	PITCHFILE	6	(1) RANGE: PITCH OUT	Exaggerate pitch contour of a pitch data file.
			(2) RANGE: TRANSPOSITION OUT	
			(3) CONTOUR: PITCH OUT	
			(4) CONTOUR: TRANSPOS OUT	
			(5) RANGE & CONTOUR:PITCH OUT	
			(6) RANGE & CONTOUR:TRANSPOS OUT	
FIX	PITCHFILE	0		Massage pitch data in a pitch datafile.
GENERATE	BRKFILE	0		Create binary pitchdata from a textfile of *time midi* value pairs.
GETPITCH	ANALFILE	2	(1) TO BINARY FILE	Attempt to extract pitch from spectral data.
			(2) TO TEXTFILE	
INSERTSIL	PITCHFILE	0		Mark areas as silent in a pitchdata file.
INSERTZEROS	PITCHFILE	2	(1) DATA AS TIMES	Mark areas as unpitched in a pitchdata file.
			(2) DATA AS (GROUPED) SAMPLECNT	
INTERP	PITCHFILE	2	(1) GLIDES BETWEEN VALID PITCHES	Replace noise or silence by pitch interpolated from existing pitches.
			(2) SUSTAINS BETWEEN VALID PITCHES	
INVERT	PITCHFILE	2	(1) PITCH DATA OUT	Invert pitch contour of a pitch data file.
			(2) TRANSPOSITION DATA OUT	
NOISETOSIL	PITCHFILE	0		Replace unpitched windows by silence.
PCHSHIFT	PITCHFILE	2	(1) TRANSPOS AS RATIO	Shift pitch data by fixed (fractional) semitones.
			(2) TRANSPOS AS SEMITONES	
			(3) TRANSPOS IN SEMITONES	
			(4) TRANSPOS AS BINARY DATA	
PCHTOTEXT	PITCHFILE	0		Convert binary pitch data to textfile.
PITCHTOSIL	PITCHFILE	0		Replace pitched windows by silence.

QUANTISE	PITCHFILE	2	(1) PITCH DATA OUT	Quantise pitches in a pitch data file.
			(2) TRANSPOSITION DATA OUT	
RANDOMISE	PITCHFILE	2	(1) PITCH DATA OUT	Randomise pitch line in a pitch data file.
			(2) TRANSPOSITION DATA OUT	
SMOOTH	PITCHFILE	2	(1) PITCH DATA OUT	Smooth pitch contour in a pitch data file.
SYNTH	PITCHFILE	0		Create spectrum by following the pitch contour in a pitch datafile.
			(2) TRANSPOSITION DATA OUT	
TRANSPOSE	ANALFILE	4	(1) TRANSPOS AS RATIO	Transpose spectrum (spectral envelope moves).
			(2) TRANSPOS IN OCTAVES	
			(3) TRANSPOS IN SEMITONES	
			(4) TRANSPOS AS BINARY DATA	
TRANSPOSEF	ANALFILE	4	(1) TRANSPOS AS RATIO	Transpose spectrum keeping original spectral envelope.
			(2) TRANSPOS IN OCTAVES	
VIBRATO	PITCHFILE	2	(1) PITCH DATA OUT	Add vibrato to pitch in a pitch data file.
			(2) TRANSPOSITION DATA OUT	
VOWELS	PITCHFILE	0		Create spectrum of vowel sounds, following pitch contour in pitch datafile.

GROUP STRETCH [SD]:

SPECTRUM	ANALFILE	2	(1) ABOVE GIVEN FRQ	Stretch the frequencies in the spectrum.
			(2) BELOW GIVEN FRQ	
TIME	ANALFILE	2	(1) DO TIME_STRETCH	Time stretch the input file.
			(2) GET OUTPUT LENGTH	
STRETCHA	(SNDFILE)	3	(1) FIND NUM. BEATS AT A TEMPO	Utility: Calculates *timestretch* factor relating to beats and tempo
			(2) FIND *timestretch*, VARIOUS IN/OUT	
			(3) FIND *timestretch*, TEMPO CHANGES	

CDP-TEXTURE – texture-builder with harmonic field/set options

FUNCTION	INFILETYPE	MODES	MODE DESCRIPTION	FUNCTION DESCRIPTION

GROUP TEXTURE [TD]: (Also see [TEXMCHAN] in the Multi-Channel Section)

SIMPLE	SNDFILE	5	(1) OVER HARMONIC FIELD	Texture of events, generated from 1 or more sounds.
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	
			(5) NEUTRAL	
GROUPED	SNDFILE	5	(1) OVER HARMONIC FIELD	Texture of event-groups generated from 1 or more sounds.
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	

			(5) NEUTRAL	
DECORATED	SNDFILE	5	(1) OVER HARMONIC FIELD	Texture of decorated events generated from 1 or more sounds
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	
			(5) NEUTRAL	
MOTIFS	SNDFILE	5	(1) OVER HARMONIC FIELD	Texture of user-specified motifs.
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	
			(5) NEUTRAL	
MOTIFSIN	SNDFILE	4	(1) OVER HARMONIC FIELD	Texture of user_specified motifs, forced onto harmonic fields.
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	
ORNATE	SNDFILE	5	(1) OVER HARMONIC FIELD	Texture of events with user-specified ornaments.
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	
			(5) NEUTRAL	
POSTDECOR	SNDFILE	5	(1) OVER HARMONIC FIELD	Texture of post-decorated events generated from 1 or more sounds
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	
			(5) NEUTRAL	
POSTORNATE	SNDFILE	5	(1) OVER HARMONIC FIELD	Texture of events with user-specified post-ornaments.
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	
			(5) NEUTRAL	
PREDECOR	SNDFILE	5	(1) OVER HARMONIC FIELD	Texture of pre-decorated events generated from 1 or more sounds
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	
			(5) NEUTRAL	
PREORNATE	SNDFILE	5	(1) OVER HARMONIC FIELD	Texture of events with user-specified pre-ornaments.
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	
			(5) NEUTRAL	
TIMED	SNDFILE	5	(1) OVER HARMONIC FIELD	Texture of timed events.

			(2) OVER HARMONIC FIELDS	|
			(3) OVER HARMONIC SET	|
			(4) OVER HARMONIC SETS	|
			(5) NEUTRAL	|
TGROUPED	SNDFILE	5	(1) OVER HARMONIC FIELD	| Texture of timed event-groups.
			(2) OVER HARMONIC FIELDS	|
			(3) OVER HARMONIC SET	|
			(4) OVER HARMONIC SETS	|
			(5) NEUTRAL	|
TMOTIFS	SNDFILE	5	(1) OVER HARMONIC FIELD	| Texture of user-specified timed motifs.
			(2) OVER HARMONIC FIELDS	|
			(3) OVER HARMONIC SET	|
			(4) OVER HARMONIC SETS	|
			(5) NEUTRAL	|
TMOTIFSIN	SNDFILE	4	(1) OVER HARMONIC FIELD	| Texture of user-specified timed motifs, forced on Harmonic Field.
			(2) OVER HARMONIC FIELDS	|
			(3) OVER HARMONIC SET	|
			(4) OVER HARMONIC SETS	|

CDP-X – more extreme forms of distortion, extension & scrambling

FUNCTION	INFILETYPE	MODES	MODE DESCRIPTION	FUNCTION DESCRIPTION
GROUP DISTORT [TD]:				
AVERAGE	SNDFILE	0		| Average the waveshape over *N* wavecycles.
CYCLECNT	SNDFILE	0		| Count pseudo-wavecycles in soundfile.
DELETE	SNDFILE	3	(1) IN GIVEN ORDER	| Time-contract file by deleting wavecycles.
			(2) RETAIN LOUDEST	|
			(3) DELETE WEAKEST	|
DIVIDE	SNDFILE	0		| Divide wavecycle 'frequencies'.
ENVEL	SNDFILE	4	(1) RISING	| Impose envelope over each (group of) wavecycle(s).
			(2) FALLING	|
			(3) TROUGHED	|
			(4) USER DEFINED	|
FILTER	SNDFILE	3	(1) HIGH PASS	| Remove wavecycles of certain lengths.
			(2) LOW PASS	|
			(3) BAND PASS	|
FRACTAL	SNDFILE	0		| Superimpose miniature copies of wavecycles onto themselves.

HARMONIC	SNDFILE	0		| Superimpose 'harmonics' onto wavecycles.
INTERACT	SNDFILE	2	(1) INTERLEAVE	| Interaction of wavecycles of two sounds.
			(2) RESIZE	|
INTERPOLATE	SNDFILE	0		| Hold wavecycle for *N* cycles,interpolating to shape of next.
MULTIPLY	SNDFILE	0		| Multiply wavecycle 'frequencies'.
OMIT	SNDFILE	0		| Omit A out of every B wavecycles, replacing them by silence.
OVERLOAD	SNDFILE	2	(1) CLIP THE SIGNAL WITH NOISE	| Clip signal with noise or a (timevarying) waveform.
			(2) CLIP WITH WAVEFORM	|
PITCH	SNDFILE	0		| Pitchwarp wavecycles of sound.
PULSED	SNDFILE	0		| Impose regular pulsations on a sound.
REFORM	SNDFILE	8	(1) FIXED LEVEL SQUARE	| Modify shape of wavecycles.
			(2) SQUARE	|
			(3) FIXED LEVEL TRIANGLE	|
			(4) TRIANGLE	|
			(5) INVERT HALFCYCLES	|
			(6) CLICK	|
			(7) SINE	|
			(8) EXAGGERATE CONTOUR	|
REPEAT	SNDFILE	0		| Timestretch file by repeating wavecycles.
REPEAT2	SNDFILE	0		| Repeat wavecycles without time-stretching.
REPLACE	SNDFILE	0		| Strongest wavecycle, in each wavecycle group, replaces others.
REPLIM	SNDFILE	0		| Timestretch by repeating ‘wavecycles’ (below a specified frequency).
REVERSE	SNDFILE	0		| Reverse wavecycle(s in groups).
SHUFFLE	SNDFILE	0		| Shuffle order of wavecycles.
TELESCOPE	SNDFILE	0		| Time-contract sound by telescoping *N* wavecycles into 1.

GROUP EXTEND [TD]:

BAKTOBAK	SNDFILE	0		| Join backwards copy to forwards original, in that order.
[CERACU]	SNDFILE	0		| Repeat source sound in cycles that will synchronise.
DOUBLETS	SNDFILE	0		| Divide a sound into segments that repeat, and splice them together.
DRUNK	SNDFILE	2	(1) COMPLETELY DRUNK	| Drunken-walk through source file (chosen segments read forwards).
			(2) SOBER MOMENTS	|
[ECHOES]	SNDFILE	0		| Repeat a sound with timing and level adjustments between repeats.
FREEZE	SNDFILE	2	(1) SPECIFY OUTPUT DURATION	| Freeze a segment of a sound by iteration in a fluid manner.
			(2) SPECIFY NUMBER OF REPEATS	|
ITERATE	SNDFILE	2	(1) GIVE DURATION	| Repeat sound with subtle variations.
			(2) GIVE COUNT	|
[ITERLINE]	SNDFILE	2	(1) GLISSANDI BETW T’POSITIONS	| Iterate an input sound, following a transposition line.
			(2) STEPS BETW T’POSITIONS	|
[ITERLINEF]	SNDFILE	2	(1) GLISSANDI BETWEEN T’POSNS	| Iterate an input sound set, following a transposition line.
			(2) STEPS BETWEEN T’POSNS	|

LOOP	SNDFILE	3	(1) LOOP ADVANCES TO END	Loop (repeat [advancing] segments) inside soundfile.
			(2) GIVE OUTPUT LENGTH	
			(3) GIVE LOOP REPETITIONS	
[MADRID]	SNDFILE	2	(1) RANDOM OUTPUT FILE ORDER	Spatially syncopate repetitions via random deletions.
			(2) USE FILE TO DEFINE O/P ORDER	
REPETITIONS	SNDFILE	0		Repeat source soundfile at given times.
SCRAMBLE	SNDFILE	2	(1) COMPLETELY RANDOM	Extend soundfile by scrambling it, and writing any given length.
			(2) SCRAMBLE SRC:THEN AGAIN	
SEQUENCE	SNDFILE	0		Produce a sequence from 1 sound, with timed transpositions.
SEQUENCE2	SNDFILE	0		Produce a sequence from several sounds, with timed transpositions.
[SHIFTER]	SNDFILE	2	(1) SAME SOUND IN ALL CYCLES	Simultaneous repetition cycles, with shifting focus.
			(2) DIFF SOUND FOR EACH CYCLE	
[SHRINK]	SNDFILE	6	(1) SHRINK FROM THE END	Repeat a sound, shortening it on each repetition.
			(2) SHRINK AROUND MIDPOINT	
			(3) SHRINK FROM THE START	
			(4) SHRINK AROUND SPECIFIED TIME	
			(5) SHRINK AROUND FOUND PEAKS..	
			(6) SHRINK AROUND SPECIFIED PEAKS	
ZIGZAG	SNDFILE	2	(1) RANDOM	Read soundfile backwards and forwards, as you specify.
			(2) USER SPECIFIED	

GROUP GRAIN [TD]:

ALIGN	SNDFILE	0		Synchronise grain-onsets in 2 grainy-sound.
ASSESS	SNDFILE	0		Estimate best gate value for grain extraction.
COUNT	SNDFILE	0		Count grains found in a grainy sound (at given gate & minhole).
DUPLICATE	SNDFILE	0		Duplicate grains in a grainy sound.
FIND	SNDFILE	0		Locate timings of grain-onsets in a grainy sound.
[GRAINEX]	SNDFILE	0		Find grains in a sound and extend the area that surrounds them.
GREV	SNDFILE	7	(1) REVERSE	Find and manipulate ‘grains’, particularly vocal syllables.
			(2) REPEAT	
			(3) DELETE	
			(4) OMIT	
			(5) TIMESTRETCH	
			(6) GET (= Create *timesfile*)	
			(7) PUT (= Use *timesfile*)	
[NEWTEX]	SNDFILE	3	(1) *N* OCTAVES & FADE IN / OUT	Generate a texture of grains made from a source sound or sounds.
			(2) NO T’POSN, SPATIAL, FADES	
			(3) DRUNKEN WALKS, SPATIAL FADES	
NOISE_EXTEND	SNDFILE	0		Find and timestretch (first) noise component in a sound.
OMIT	SNDFILE	0		Omit a proportion of grains in a grainy sound.
REMOTIF	SNDFILE	2	(1) NO GRAIN REPEATS	Change pitch and rhythm of grains in a grainy sound.

			(2) REPEAT EACH GRAIN	|
REORDER	SNDFILE	0		| Reorder grains in a grainy sound.
REPITCH	SNDFILE	2	(1) NO GRAIN REPEATS	| Repitch grains in a grainy sound.
			(2) REPEAT EACH GRAIN	|
REPOSITION	SNDFILE	0		| Reposition grain-onset in a grainy sound.
RERHYTHM	SNDFILE	2	(1) NO GRAIN REPEATS	| Change rhythm of grains in a grainy sound.
			(2) REPEAT EACH GRAIN	|
REVERSE	SNDFILE	0		| Reverse order of grains in sound, but NOT grains themselves.
R_EXTEND	SNDFILE	0		| Extend sounds that are iterative.
TIMEWARP	SNDFILE	0		| Stretch (or shrink) duration of sound, but NOT of grains.
[WRAPPAGE]	SNDFILE	0		| Granular reconstitution of one or more sounds over multi-channel space.

GROUP STRANGE [SD]:

GLISS	ANALFILE	3	(1) SHEPARD TONE GLIS	| Create glissandi inside (changing) spectral envelope sound.
			(2) INHARMONIC GLIS	|
			(3) SELF GLIS	|
INVERT	ANALFILE	2	(1) STANDARD	| Invert spectrum.
			(2) RETAIN SOURCE ENVELOPE	|
SHIFT	ANALFILE	5	(1) SHIFT ALL	| Linear (inharmonic) frequency shift of (part of) the spectrum.
			(2) SHIFT ABOVE FRQ	|
			(3) SHIFT BELOW FRQ	|
			(4) SHIFT BETWEEN FRQS	|
			(5) SHIFT OUTSIDE FRQS	|
WAVER	ANALFILE	2	(1) STANDARD	| Oscillate between harmonic and inharmonic state.
			(2) USER SPECIFIED	|

CDP-UTILS-1 – time-domain utilities

FUNCTION	INFILETYPE	MODES	MODE DESCRIPTION	| FUNCTION DESCRIPTION

GROUP ENVEL (ENVELOPE) [TD]:

ATTACK	SNDFILE	4	(1) WHERE GATE EXCEEDED	| Emphasise the attack of a sound.
			(2) NEAR TIME GIVEN	|
			(3) AT EXACT TIME GIVEN	|
			(4) AT MAX LEVEL IN FILE	|
BRKTOENV	BRKFILE	0		| Convert (text) breakpoint envelope to binary envelope file.
CREATE	TEXTFILE	2	(1) BINARY OUTPUT	| Create an envelope.

			(2) TEXTFILE OUTPUT	
CURTAIL	SNDFILE	3	(1) GIVE START & END OF FADE	Curtail soundfile by fading to zero at some time within it.
			(2) GIVE START & DUR OF FADE	
			(3) GIVE START OF FADE-TO-END	
CYCLIC	SNDFILE	4	(1) RISING	Create a sequence of repeated envelopes, in a binary envelope file.
			(2) FALLING	
			(3) TROUGHED (FALLS THEN RISES)	
			(4) USER-DEFINED	
DBTOENV	DB_BRKFILE	0		Convert (text) breakpoint file with dB values to binary file.
DBTOGAIN	DB_BRKFILE	0		Convert (text) breakpoint file with dB values to gain values (0-1).
DOVETAIL	SNDFILE	2	(1) NORMAL FADES, LIN OR EXP	Dovetail soundfile by enveloping start and end of it.
			(2) DOUBLY-EXPONENTIAL FADES	
ENVTOBRK	ENVFILE	0		Convert binary envelope file to a (text) breakpoint file.
ENVTODB	ENVFILE	0		Convert binary envelope file to (text) breakpoint file with dB values.
EXTRACT	SNDFILE	2	(1) BINARY OUTPUT	Extract envelope from an input soundfile.
			(2) TEXTFILE OUTPUT	
GAINTODB	BRKFILE	0		Convert (text) breakpoint file with gain (0-1) values to dB values.
IMPOSE	SNDFILE	4	(1) ENV FROM OTHER SNDFILE	Impose an envelope on an input soundfile.
			(2) ENV IN BINARY FILE	
			(3) ENV IN TEXTFILE	
			(4) ENV IN dB TEXTFILE	
PLUCK	SNDFILE	0		Create pluck on start of sound (MONO files only).
REPLACE	SNDFILE	4	(1) ENV FROM OTHER SNDFILE	Replace existing envelope of an input soundfile.
			(2) ENV IN BINARY FILE	
			(3) ENV IN TEXTFILE	
			(4) ENV IN dB TEXTFILE	
REPLOT	BRKFILE	15	(1) NORMALISE	Warp envelope in a text breakpoint file.
			(2) TIME REVERSE	
			(3) EXAGGERATE	
			(4) ATTENUATE	
			(5) LIFT ALL	
			(6) TIME-STRETCH	
			(7) FLATTEN	
			(8) GATE	
			(9) INVERT	
			(10) LIMIT	
			(11) CORRUGATE	
			(12) EXPAND	
			(13) TRIGGER BURSTS	
			(14) TO CEILING	
			(15) DUCKED	

RESHAPE	ENVFILE	15	(1) NORMALISE	Warp envelope in a binary envelope file.
			(2) TIME REVERSE	
			(3) EXAGGERATE	
			(4) ATTENUATE	
			(5) LIFT ALL	
			(6) TIME-STRETCH	
			(7) FLATTEN	
			(8) GATE	
			(9) INVERT	
			(10) LIMIT	
			(11) CORRUGATE	
			(12) EXPAND	
			(13) TRIGGER BURSTS	
			(14) TO CEILING	
			(15) DUCKED	
SCALED	SNDFILE	0		Impose envelope, scaling envelope times to soundfile duration.
SWELL	SNDFILE	0		Cause sound to fade in to and out from a peak moment.
TIMEGRID	SNDFILE	0		Partition a soundfile into a sequence of 'windows' separated by silence.
[TOPANTAIL2]	SNDFILE	0		Gated sound extraction with trim and backtracking
TREMOLO	SNDFILE	2	(1) FRQWISE	Tremolo a sound.
			(2) PITCHWISE	
[TREMOLO]	SNDFILE	2	(1) LINEAR INTERPOLATION	Apply width-controlled tremolo to a soundfile.
			(2) LOGARITHMIC INTERPOLATION	
WARP	SNDFILE	15	(1) NORMALISE	Warp envelope of a soundfile.
			(2) TIME REVERSE	
			(3) EXAGGERATE	
			(4) ATTENUATE	
			(5) LIFT ALL	
			(6) TIME-STRETCH	
			(7) FLATTEN	
			(8) GATE	
			(9) INVERT	
			(10) LIMIT	
			(11) CORRUGATE	
			(12) EXPAND	
			(13) TRIGGER BURSTS	
			(14) TO CEILING	
			(15) DUCKED	

GROUP ENVNU [TD]:

EXPDECAY	SNDFILE	0	Produce a true exponential decay to zero on a sound.

PEAKCHOP	SNDFILE	2	(1) REARRANGE PEAKS WITH TEMPO	Isolate amplitude peaks in a sound.
			(2) OUTPUT A PEAK-ISOLATING ENV	

GROUP HOUSEKEEP [TD]:

BAKUP	SNDFILE	0		Concatenate soundfiles in one backup file, with silences between.
BATCHEXPAND	SNDFILE	2	(1) WITH A SINGLE SOUNDFILE	Expand an existing batchfile.
			(2) WITH SEVERAL SOUNDFILES	
BUNDLE	ANYFILE	5	(1) ANY FILES	List files into a textfile, for sorting, backup or creating mixdummy..
			(2) NON-TEXT FILES	
			(3) SAME TYPE	
			(4) SAME PROPERTIES	
			(5) SAME CHANNELS	
[CHANPHASE]	SNDFILE	0		Invert phase of one channel of an input sound.
CHANS	SNDFILE	5	(1) EXTRACT A CHANNEL	Extract channels or change channel format of soundfile.
			(2) EXTRACT ALL CHANNELS	
			(3) ZERO A CHANNEL	
			(4) CONVERT STEREO TO MONO	
			(5) CONVERT MONO TO 'STEREO'	
COPY	SNDFILE	3	(1) MAKE A COPY	Make and delete exact copies of a sound.
			(2) MAKE MULTIPLE COPIES	
			(3) DELETE COPIES	
DEGLITCH	SNDFILE	0		Attempt to deglitch a soundfile.
DISK	ANYFILE	0		Show available space on disk.
ENDCLICKS	SNDFILE	0		Remove clicks from start or end of file.
EXTRACT	SNDFILE	4	(1) GATED EXTRACTION	Extract significant sound from recording, top & tail, remove glitches etc.
			(2) PREVIEW EXTRACTION	
			(3) TOP AND TAIL	
			(4) REMOVE DC	
			(5) BY HAND (no longer available)	
			(6) GET ONSET TIMES	
GATE	SNDFILE	0		Cut file at zero amplitude points.
[GATE]	SNDFILE	2	(1) REPLACE BY SILENCE	Remove low-level sound from a signal.
			(2) EDIT OUT	
REMOVE	SNDFILE	0		Remove existing copies of a file.
RESPEC	SNDFILE	3	(1) CHANGE SAMPLING RATE	Change sample rate, format or properties of a soundfile (CARE!!).
			(2) CONVERT SAMPLE FORMAT	
			(3) CHANGE PROPERTIES	
SORT	TEXTFILE	6	(1) BY FILETYPE	Sort files listed in a textfile.
			(2) BY SAMPLING RATE	
			(3) BY DURATION	
			(4) BY LOG DURATION	

			(5) INTO DURATION ORDER	
			(6) FIND ROGUES	
GROUP MULTI-CHANNEL [TD]:				
[FLUTTER]	MCSNDFILE	0		Add multi-channel-distributed tremolo to a multi-channel soundfile.
[FRACTURE]	MONOSFILE	2	(1) *N*-CHAN DISPERAL IN *N*-CHAN..	Disperse a mono signal into fragments spread over *N*-channel space.
			(2) STEREO DISPERAL IN SURROUND..	
[FRAME SHIFT]	MCSNDFILE	7	(1) ROTATE ENTIRE FRAME	Create frame patterns for multi-channel speaker setups.
			(2) ROTATE WITH 2 ROTATION VALS	
			(3) CHANGE CHANNEL ASSIGNMENT	
			(4) MIRROR CHANNEL OUTPUT	
			(5) RING- => BILATERALLY NUMB'D	
			(6) SWAP ANY PAIR OF CHANNELS	
			(7) CHANNEL ENVELOPING	
			(8) RING-NUMBERED TO BEAST NUMS	
[MCHANPAN]	SNDFILE	10	(1) MOVE MONO SND IN M-C SPACE	Pan sounds around a multi-channel space.
			(2) SWITCH MONO EVENTS ...	
			(3) SPREAD MONO EVENTS ...	
			(4) SPREAD FROM CENTRE	
			(5) SWITCH ANTIPHONALLY	
			(6) SWITCH ANTIPHONALLY (>1 FILE)	
			(7) PAN BETWEEN CONFIGURATIONS	
			(8) PAN A PROCESS (on LOOM only)	
			(9) ROTATE A MONO SOUNDFILE	
			(10) SWITCH CHANNELS RANDOMLY	
[MCHANREV]	SNDFILE	0		Multi-channel echoes or reverb.
[MCHITER]	SNDFILE	2	(1) SPECIFY OUTPUT DURATION	Iterate a sound scattering it in multi-channel space.
			(2) SPECIFY NUMBER OF REPS	
[MCHSHRED]	SND(MC)FILE	2	(1) MONO INPUT TO M-C OUTPUT	Shred and randomly reassemble in multi-channel space.
			(2) MULTI-CHANNEL INPUT	
[MCHSTEREO]	SNDFILE	0		Place several stereo files in a multi-channel space.
[MCHZIG ZAG]	SNDFILE	2	(1) RANDOMISED ZIGZAGS	Zigs & zags through soundfile, each panned to a different channel.
			(2) ZIGZAGS VIA FILE OF TIMES	
[MTON]	SNDFILE	0		Convert a mono to a multi-channel file, identical in all channels.
[MULTIMIX]	MCSNDFILE	8	(1) ALL FILES START AT TIME 0	Create a multi-channel mixfile.
			(2) END-TO-END MIXING	
			(3) CONSTANT TIMESTEP	
			(4) STEREO ASSIGNMENTS	
			(5) 8-WIDE DISTRIBUTION	
			(6) ASCENDING ORDER	
			(7) CHANNELS > OR < INPUTS	

			(8) SPECIFY NUM OUTPUT CHANNELS	
[NEWMIX]	MCSNDFILE	0		Mix from a multi-channel mixfile to multi-channel output.
[PANORAMA]	MONOSFILES	2	(1) LSPKRS EQUALLY SPACED	Distribute *N* source files in an angle of surround array.
			(2) LSPKRS DEFINED IN TEXTFILE	
[STRANS MULTI]	MCSNDFILE	4	(1) TRANSPOSE BY RATIOS	Change speed or pitch or add vibrato to m-c sound.
			(2) TRANSPOSE BY SEMITONES	
			(3) ACCELERATE	
			(4) VIBRATO	
[TANGENT] M-C GROUP (Command lines: tangent onefile, tangent twofiles etc.)				
ONEFILE	MONOSFILE	2	(1) IF FOCUS AT 1, TANGENT R-ANGL	Repeat one mono soundfile along a tangent path
			(2) IF FOCUS AT 1, TANGENT 2-3 LINE	
TWOFILES	MONOSFILES	2	(1) IF FOCUS AT 1, TANGENT R-ANGL	Repeat two synchronised mono soundfiles along a tangent path
			(2) IF FOCUS AT 1, TANGENT 2-3 LINE	
SEQUENCE	MONOSFILES	2	(1) IF FOCUS AT 1, TANGENT R-ANGL	Play sequence of mono soundfiles along a tangent path
			(2) IF FOCUS AT 1, TANGENT 2-3 LINE	
LIST	MONOSFILES	2	(1) IF FOCUS AT 1, TANGENT R-ANGL	Play mono soundfiles listed in textfile along a tangent path
			(2) IF FOCUS AT 1, TANGENT 2-3 LINE	
[TEXMCHAN]	SNDFILE	5	(1) OVER HARMONIC FIELD	Create textures over a multi-channel frame.
			(2) OVER HARMONIC FIELDS	
			(3) OVER HARMONIC SET	
			(4) OVER HARMONIC SETS	
			(5) NEUTRAL	
[TRANSIT] M-C GROUP [All sub-modules have 5 modes: (1) GLANCING (2) EDGEWISE (3) CROSSING (4) CLOSE (5) CENTRAL] **(Command lines: transit simple, transit filtered etc.)**				
SIMPLE	MONOSFILE	5	(1-5) as above	Repetitions of a mono soundfile across an 8-channel array.
FILTERED	MONOSFILE	5	(1-5) as above	Filtered repetitions of a mono soundfile across an 8-channel array.
DOPPLER	MONOSFILE	5	(1-5) as above	Doppler effect with a mono soundfile across an 8-channel array.
DOPLFILT	MONOSFILE	5	(1-5) as above	Doppler effect with filtered mono soundfile across an 8-channel array.
SEQUENCE	MONOSFILE	5	(1-5) as above	Position sequence of mono soundfiles across an 8-channel array.
LIST	MONOSFILE	5	(1-5) as above	Position listed sequence of mono soundfiles across an 8-channel array.
[WRAPPAGE]	SNDFILE	0		(Now placed in the GRAIN section, q.v.).
GROUP SFEDIT [TD]:				
[CANTOR]	SNDFILE	3	(1) *HOLESIZE* IS A PERCENTAGE	Cut holes in a sound in the manner of a cantor set.
			(2) *HOLESIZE* IS A FIXED DURATION	
			(3) SUPERIMPOSED VIBRATO ENVS	
[CONSTRICT]	SNDFILE	0		Shorten the durations of any zero-level sections in a sound.
CUT	SNDFILE	3	(1) TIME IN SECONDS	Cutout and keep a segment of a soundfile.
			(2) TIME AS SAMPLE COUNT	
			(3) TIME AS GROUPED SAMPLES	

CUTEND	SNDFILE	3	(1) TIME IN SECONDS	Cutout and keep end part of a soundfile.
			(2) TIME AS SAMPLE COUNT	
			(3) TIME AS GROUPED SAMPLES	
CUTMANY	SNDFILE	3	(1) TIME IN SECONDS	Cut and keep several segments of a sound.
			(2) TIME AS SAMPLE COUNT	
			(3) TIME AS GROUPED SAMPLES	
EXCISE	SNDFILE	3	(1) TIME IN SECONDS	Remove segment of soundfile, and close up gap.
			(2) TIME AS SAMPLE COUNT	
			(3) TIME AS GROUPED SAMPLES	
EXCISES	SNDFILE	3	(1) TIME IN SECONDS	Remove segments of soundfile, and close up gaps.
			(2) TIME AS SAMPLE COUNT	
			(3) TIME AS GROUPED SAMPLES	
INSERT	SNDFILE	3	(1) TIME IN SECONDS	Insert 2nd sound into first (overwriting or spreading 1st sound).
			(2) TIME AS SAMPLE COUNT	
			(3) TIME AS GROUPED SAMPLES	
INSIL	SNDFILE	3	(1) TIME IN SECONDS	Insert silence into sound (overwriting or spreading sound).
			(2) TIME AS SAMPLE COUNT	
			(3) TIME AS GROUPED SAMPLES	
[ISOLATE]	SNDFILE	5	(1) SEVERAL OUTPUTS FROM 1 SEG	Disjunct portions of soundfile … saved to separate files.
			(2) SEVERAL OUTPUTS, SEV. SEGS	
			(3) 1 OUTPUT FROM SEVERAL SEGS	
			(4) ENTIRE INFILE TO DISJUNCT SEGS	
			(5) LIKE (4) BUT WITH OVERLAPS	
JOIN	SNDFILE	0		Join sounds together, one after another.
JOINDYN	SNDFILE	0		Join soundfiles in loudness-patterned sequence.
JOINSEQ	SNDFILE	0		Join soundfiles in patterned sequence.
[MANYSIL]	SNDFILE	0		Insert many silences into a soundfile.
MASKS	SNDFILE	3	(1) TIME AS SECONDS	Mask specified chunks of a sound, with silence.
			(2) TIME AS SAMPLE COUNT	
NOISECUT	SNDFILE	0		Suppress noise in a (mono) soundfile, replacing with silence.
			(3) TIME AS GROUPED SAMPLES	
[PACKET]	SNDFILE	2	(1) SIGNAL MINIMA FINDS EDGES	Isolate or generate a sound packet.
			(2) PACKET AT SPECIFIED TIME	
[PARTITION]	SNDFILE	2	(1) DURATIONS BY WAVESETS	Partition a mono soundfile into disjunct files in waveset blocks.
			(2) DURATIONS SPECIFIED BY USER	
[PREFIX SILENCE]	SNDFILE	0		Add silence to the beginning of a soundfile.
RANDCHUNKS	SNDFILE	0		Cut chunks from a soundfile, randomly.
RANDCUTS	SNDFILE	0		Cut soundfile into pieces, with cuts at random times.
REPLACE	SNDFILE	0		Insert a 2nd sound into an existing sound, replacing part of original.
[RETIME]	SNDFILE	14	(1) SPECIFY TIMES OF PEAKS	Rearrange and retime events within a soundfile.
			(2) SYNCHRONISE SPECIFIED PEAKS	(NB – Mode 2 is only available in *Sound Loom*)

			(3) SHORTEN EXISTING EVENTS	
			(4) EVENTS => REGULAR TEMPO	
			(5) EVENTS => TEMPO MULTIPLIER	
			(6) EVENTS => SPECIFIED BEATS	
			(7) EVENTS => SPECIFIED TIMES	
			(8) REPEAT AT SPECIFIED TEMPO	
			(9) CREATE PATTERN OF SILENCES	
			(10) CREATE PATTERN OF ACCENTS	
			(11) FIND SHORTEST & LONGEST	
			(12) FIND FIRST NON-ZERO SIGNAL	
			(13) PLACE PEAK AT SPECIFIED TIME	
			(14) PLACE EVENT AT SPECIFIED TIME	
[SILEND]	SNDFILE	2	(1) SPECIFY DURATION OF SILENCE	Add silence to the end of a soundfile.
			(2) SPECIFY TOTAL DURATION	
SPHINX	SNDFILE	3	(1) IN SEQUENCE	Switch between several files, with different switch times, to make new sound.
			(2) PERMUTATED	
			(3) MAKE RANDOM CHOICE	
[SUBTRACT]	SNDFILE	0		Subtract one soundfile from another.
SYLLABLES	SNDFILE	3	(1) TIME IN SECONDS	Separate out vocal syllables.
			(2) TIME AS SAMPLE COUNT	
			(3) TIME AS GROUPED SAMPLE CNT	
TWIXT	SNDFILE	4	(1) IN SEQUENCE	Switch between several files to make new sound.
			(2) PERMUTATED	
			(3) MAKE RANDOM CHOICE	
			(4) EDIT ONLY	
ZCUT	SNDFILE	2	(1) TIME IN SECONDS	Cutout & keep a segment of soundfile, with no splicing.
			(2) TIME AS SAMPLE COUNT	
ZCUTS	SNDFILE	2	(1) TIME IN SECONDS	Cutout & keep segments of soundfile, with no splicing.
			(2) TIME AS SAMPLE COUNT	

GROUP SNDINFO [TD]:

CHANDIFF	SNDFILE	0	Do channels of stereo file differ?
DIFF	BINARY6	0	Do two (non-text) files differ?
FINDHOLE	SNDFILE	0	Locate largest area of low-level signal in sound.
LEN	BINARY6	0	Show duration of sound, analysis, envelope, pitch, formant or transposition file.
LENS	SNDFILE	0	List durations of soundfiles.
LOUDCHAN	SNDFILE	0	Show loudest channel of stereo file.
MAXI	SNDFILE	0	List levels of several soundfiles.
MAXSAMP	BINARY6	0	Show level and position of maximum sample.
MAXSAMP2	BINARY6	0	Show level and position of maximum sample within specified time points.
PRNTSND	SNDFILE	0	Print sample values (CARE!! LARGE FILES)

PROPS	BINARY6	0		Show properties of file.
SMPTIME	SNDFILE	0		Convert a sample-position in file to a time.
SUMLEN	SNDFILE	0		Sum durations of soundfiles.
TIMEDIFF	SNDFILE	0		Find difference in duration of two soundfiles.
TIMESMP	SNDFILE	0		Convert a time to a sample-position in file.
UNITS	ANYFILE	25		Convert values from one type of unit to another.
	PITCH		(1) MIDI to FRQ	
			(2) FRQ to MIDI	
			(3) NOTE to FRQ	
			(4) NOTE to MIDI	
			(5) FRQ to NOTE	
			(6) MIDI to NOTE	
			(7) FRQ RATIO to SEMITONES	
			(8) FRQ RATIO to INTERVAL	
	INTERVAL		(9) INTERVAL to FRQ RATIO	
			(10) SEMITONES to FRQ RATIO	
			(11) OCTAVES to FRQ RATIO	
			(12) OCTAVES to SEMITONES	
			(13) FRQ RATIO to OCTAVES	
			(14) SEMITONES to OCTAVES	
			(15) SEMITONES to INTERVAL	
	SPEED		(16) FRQ RATIO to TIME RATIO	
			(17) SEMITONES to TIME RATIO	
			(18) OCTAVES to TIME RATIO	
			(19) INTERVAL to TIME RATIO	
			(20) TIME RATIO to FRQ RATIO	
			(21) TIME RATIO to SEMITONES	
			(22) TIME RATIO to OCTAVES	
			(23) TIME RATIO to INTERVAL	
	LOUDNESS		(24) GAIN FACTOR to dB GAIN	
			(25) dB GAIN to GAIN FACTOR	
ZCROSS	SNDFILE	0		Display fraction of zero-crossings in a sound.

GROUP SUBMIX [TD (Also see Group Multi-channel)

ADDTOMIX	MIXFILE	0		Add soundfiles to an existing mixfile.
ATSTEP	TEXTFILE	0		Convert a list of soundfiles to a mixfile.
ATTENUATE	MIXFILE	0		Alter the overall level of a mixfile.
BALANCE	SNDFILES	0		Mix between 2 soundfiles, using a balance function.
CROSSFADE	SNDFILE	2	(1) LINEAR	Quick crossfade between 2 soundfiles (with same no. of channels).

			(2) COSINUSOIDAL	
DUMMY	SNDLIST	2	(1) ALL FILES START AT TIME ZERO	Convert list of sound names to basic mixfile (for editing).
			(2) FILES START WHERE PREVIOUS ENDS	
FADERS	SNDFILES	0		Mix several soundfiles using a time-changing level-balance function.
FILEFORMAT	MIXFILE	0		Displays format of mixfiles.
GETLEVEL	MIXFILE	3	(1) MAXIMUM LEVEL	Test maximum level of a mix, defined in a mixfile.
			(2) CLIPPING TIMES	
			(3) MAXLEVEL & CLIPTIMES	
INBETWEEN	SNDFILE	2	(1) AUTOMATIC	Generate set of sounds in-between 2 input sounds (same no. of channels).
			(2) GIVE MIX RATIOS	
INBETWEEN2	SNDFILE	0	(1) AUTOMATIC	Generate set of sounds in-between 2 input sounds (same no. of channels), through interpolation pegged to zero-crossings.
INTERLEAVE	SNDFILE	0		Interleave mono files to make multi-channel *outfile*.
MERGE	SNDFILE	0		Quick mix of two soundfiles (with same number of channels).
MERGEMANY	SNDFILES	0		Quick mix of several soundfiles (with the same number of channels).
MIX	MIXFILE	0		Mix sounds as instructed in a mixfile.
MODEL	MIXFILE	0		Replace soundfiles in an existing mixgfile.
ONGRID	SNDFILE	0		Convert listed soundfiles to a basic mixfile on timed grid (for editing).
PAN	SNDFILE	0		Pan a mixfile.
SHUFFLE	MIXFILE	7	(1) DUPLICATE LINES	Shuffle the data in a mixfile.
			(2) REVERSE ORDER FILENAMES	
			(3) SCATTER ORDER FILENAMES	
			(4) FIRST FILENAME TO ALL	
			(5) OMIT LINES	
			(6) OMIT ALTERNATE LINES	
			(7) DUPL LINES, NEW FILENAME	
SPACEWARP	MIXFILE	8	(1) FIX POSITION	Alter spatial distribution of a mixfile.
			(2) NARROW	
			(3) SEQUENCE LEFTWARDS	
			(4) SEQUENCE RIGHTWARDS	
			(5) SCATTER	
			(6) SCATTER ALTERNATING	
			(7) TWIST WHOLE MIX	
			(8) TWIST A LINE	
SYNC	MIXFILE	2	(1) AT MIDTIMES	Synchronise sounds, into a mixfile (you reset levels).
			(2) AT ENDTIMES	
SYNCATTACK	MIXFILE	0		Synchronise sound attacks, into a mixfile (ditto).
TEST	MIXFILE	0		Test the syntax of a mixfile.
TIMEWARP	MIXFILE	16	(1) SORT ENTRY TIMES	Timewarp the data in a mixfile.
			(2) REVERSE TIMING PATTERN	
			(3) REVERSE TIMING & NAMES	

			(4) FREEZE TIMEGAPS	|
			(5) FREEZE TIMEGAPS & NAMES	|
			(6) SCATTER ENTRY TIMES	|
			(7) SHUFFLE UP ENTRY TIMES	|
			(8) ADD TO TIMEGAPS	|
			(9) CREATE TIMEGAP 1	|
			(10) CREATE TIMEGAP 2	|
			(11) CREATE TIMEGAP 3	|
			(12) CREATE TIMEGAP 4	|
			(13) ENLARGE TIMEGAP 1	|
			(14) ENLARGE TIMEGAP 2	|
			(15) ENLARGE TIMEGAP 3	|
			(16) ENLARGE TIMEGAP 4	|
GROUP SYNTH [TD]:				
CHORD	TEXTFILE	0		| Generate a chord with a simple waveform.
CLICKS	TEXTFILE	2	(1) START & END ARE TIMES	| Create a click track from tempo, meter & barring data.
			(2)START & END ARE DATA LINE Nos.	|
[NEWSYNTH]	ANALFILE	3	(1) TONES FROM PARTIALS	| Generate complex spectra from information in textfile(s).
			(2) WAVE-PACKET STREAMS	|
			(3) MULTI-CHANNEL MODE	|
NOISE	NONE	0		| Make soundfiles of noise.
SILENCE	NONE	0		| Make soundfiles of silence.
SPECTRA	NONE	0		| Generate both channels of a stereo spectral band.
WAVE	NONE	4	(1) SINE	| Generate synthetic waveforms.
			(2) SQUARE	|
			(3) SAW	|
			(4) RAMP	|

CDP-UTILS-2 – spectral domain utilities

FUNCTION	INFILETYPE	MODES	MODE DESCRIPTION	| FUNCTION DESCRIPTION
GROUP PVOC (FFT) [TD & SD]:				
ANAL	SNDFILE	3	(1) STANDARD	| Convert soundfile to spectral file.
			(2) GET SPEC ENVELOPE ONLY	|
			(3) GET SPEC MAGNITUDES ONLY	|
SYNTH	ANALFILE	0		| Convert spectral file to soundfile.
EXTRACT	SNDFILE	0		| Analyse then resynthesise sound with various options.

GROUP PITCHINFO [SD]:

CONVERT	PITCHFILE	0		| Convert binary pitchfile to time/frequency breakpoint textfile.
HEAR	PITCHFILE	0		| Convert binary pitchfile to analysis *testtone* file.
INFO	PITCHFILE	0		| Display information about pitchdata in binary pitchfile.
SEE	PITCHFILE	2	(1) SEE PITCH	| Convert pitch (or *transpos*) file to 'soundfile' to view.
			(2) SEE TRANSPOSITION	|
ZEROS	PITCHFILE	0		| Does binary pitchfile contains zeros (unpitched windows)?

GROUP SPEC [SD]:

BARE	ANALFILE	0		| Zero data in channels which don't contain harmonics.
CLEAN	ANALFILE	4	(1) FROM SPECIFIED TIME	| Remove noise from PVOC analysis file (Deprecated => SPECNU).
			(2) ANYWHERE	|
			(3) ABOVE SPECIFIED FRQ	|
			(4) BY COMPARISON METHOD	|
CUT	ANALFILE	0		| Cut section out of analysis file.
GAIN	ANALFILE	0		| Amplify or attenuate the spectrum.
GATE	ANALFILE	0		| Eliminate channel data below a threshold amplitude.
[GLISTEN]	ANALFILE	0		| .Randomly partition the spectrum and play back in order.
GRAB	ANALFILE	0		| Grab a single analysis window.
MAGNIFY	ANALFILE	0		| Magnify a single analysis window.
[SELFSIM]	ANALFILE	0		| Replaces spectral windows with the most similar, louder window(s).
[SPECGRIDS]	ANALFILE	0		| Partition a spectrum into parts, over a grid.
[SPECROSS]	ANALFILE	0		| Interpolate partials of pitched *inanalfile1* towards those of pitched *inanalfile2*.
[SPECSPHINX]	ANALFILE	2	(1) AMPLITUDES ONTO FREQUENCIES	| Channel amps of file2 onto channel frqs of file1.
			(2) MULTIPLY THE SPECTRA	|

GROUP SPECNU [SD] :

CLEAN	ANALFILE	0		| Remove persisting signal that falls below a threshold.
RAND	ANALFILE	0		| Randomise order of spectral windows.
REMOVE	ANALFILE	2	(1) PITCH & HARMONICS	| Remove a pitched component from the spectrum of a sound.
			(2) EVERYTHING BUT THE PITCH	|
SLICE	ANALFILE	4	(1) MOIRÉE SLICE	| Divide analysis file into individual frequency bands & save each.
			(2) FREQUENCY BAND SLICE	|
			(3) PITCH BAND SLICE	|
			(4) HARMONICS SLICE	|
SQUEEZE	ANALFILE	0		| Squeeze spectrum into a frequency range, around a specified frq.
SUBTRACT	ANALFILE	0		|Remove persisting signal below threshold and subtract amplitude.

GROUP SPECINFO [SD]:

CHANNEL	ANALFILE	0		| Get channel number corresponding to frequency given.

[GET_PARTIALS]	ANALFILE	4	(1) SINGLE WINDOW (FRQ & AMP) (2) SINGLE WINDOW (MIDI & AMP) (3) WINDOW AT *time* (FRQ & AMP) (4) WINDOW AT *time* (MIDI & AMP)	Extract relative amplitudes of partials in a pitched source.
FREQUENCY	ANALFILE	0		Get centre frequency of channel specified.
LEVEL	ANALFILE	0		Convert (varying) level of analysis file to 'soundfile' to view.
OCTVU	ANALFILE	0		Display time-varying amp of spectrum, within octave bands.
PEAK	ANALFILE	0		Locate time-varying energy centre of spectrum.
[PEAK EXTRACT]	ANALFILE	4	(1) LIST OF PEAKS, VARYING TIMES (2) STREAM – MAX PEAKS FOUND (3) STREAM – PROMINENT PEAKS (4) AVERAGE VALUE	Extract peaks from analysis file and write to a text file
[PEAKFIND]	SNDFILE	0		Find the times of the peaks in a sound.
PRINT	ANALFILE	0		Print data in analysis file as textfile.
REPORT	ANALFILE	4	(1) ORDER BY FRQ & TIME (2) ORDER BY LOUDNESS & TIME (3) ORDER BY FRQ (UNTIMED) (4) ORDER BY LOUDNESS (UNTIMED)	Report location of frequency peaks in evolving spectrum.
WINDOWCNT	ANALFILE	0		Get number of analysis windows in *infile*.

CDP-EXTRAS – core system (Play, Record) and other useful additions

CATEGORY	INFILETYPE	MODES	MODE DESCRIPTION	FUNCTION DESCRIPTION

CSOUND [TD & SD]: Please download *Csound* from the Net. Previous CDP programs related to it are now redundant.

MC-TOOLKIT [TD]:

[ABFPAN]	SNDFILE	0	Apply a fixed or orbiting 1st order B-format pan to a mono soundfile.
[ABFPAN2]	SNDFILE	0	Apply a fixed or orbiting 2nd order B-format pan to a mono soundfile.
[CHANNELX]	SNDFILE	0	Extract all or selected channels from a multi-channel soundfile.
[CHORDER]	SNDFILE	0	Re-order soundfile channels in a multi-channel soundfile.
[CHXFORMAT]	SNDFILE	0	Modify WAVE_EX header to change GUID and/or speaker positions.
[COPYSFX]	SNDFILE	0	Copy/convert a multi-channel soundfile.
[FMDCODE]	SNDFILE	0	Decode 1st or 2nd order B-Format soundfile to a choice of speaker layouts.
[INTERLX]	SNDFILE	0	Interleave mono or stereo files into a multi-channel soundfile.
[NJOIN]	SNDFILE	0	Concatenate multiple soundfiles with optional CUE list for CD burning.
[NMIX]	SNDFILE	0	Simple mix two multi-channel soundfiles, with optional offset.
[PAPLAY]	SNDFILE	0	Playback of multi-channel soundfiles.
[RMSINFO]	SNDFILE	0	Scan soundfile and report RMS and average power level statistics.

[SFPROPS]	SNDFILE	0	| Display soundfile details, with WAVE-EX speaker positions.

REVERB [TD]:

[REVERB]	SNDFILE	0	| Multi-channel reverb (classic Shroeder).
[ROOMRESP]	SNDFILE	0	| Create early reflections data file for REVERB, ROOMVERB & TAPDELAY.
[ROOMVERB]	SNDFILE	0	| Multi-channel reverb with room simulation.
[TAPDELAY]	SNDFILE	0	| Stereo multi-tapped delay line with feedback.

SYSTEM (TD & SD]:

[ALIAS]	SNDFILE	0	| Create a shortcut to a soundfile (PC only).
[CDPCONV]	ANALFILE	0 (to convert analysis files from PPC to Intel format)	| Removed from CDP system, but available from Richard Dobson if needed.
[COLUMNS]	TEXTFILE	0 (many flags)	| Manipulate or generate columns of numbers.
[COPYSFX]	SNDFILE	0	| Copy/convert a multi-channel soundfile.
[DIRSF]	SNDFILE	0	| Soundfile/analysis file directory listing.
[PAPLAY]	SNDFILE	0	| Play a (multi-channel) soundfile.
[PVPLAY]	SND/ANALFILE	0	| Play a (multi-channel) soundfile or an analysis file.
[RECSF]	SNDFILE	0	| Record, creating a soundfile (PC only).

<u>INFORMATION ONLY</u> (All of Releases 5, 6 & 7 are now located above according to function. They are 'separate' programs (shown by being encased in square brackets […]) and are not sub-modules of Groups. TANGENT and TRANSIT are themselves Groups with sub-modules.)

RELEASE 5 NEW [TD]: [DSHIFT] [PTOBRK]

RELEASE 6 NEW [TD/SD]: [CONSTRICT] [FASTCONV] [GATE] [GET_PARTIALS] [GREXTEND] [MANYSIL] [PEAK EXTRACT] [PEAKFIND] PHASE] [PREFIX SILENCE] [SPECROSS] [RETIME] [TOPNTAIL2] **and these Multi-Channel programs:** [FLUTTER] [FRAME_SHIFT] [MCHANPAN] [MCHANREV] [MCHITER] [MCHSHRED] [MCHSTEREO] [MCHZIG] [MTON] [MULTIMIX] [STRANS_MULTI] [TEXMCHAN]

RELEASE 7 NEW - SPECTRAL [SD]: [GLISTEN] [NEWMORPH/2] [SELFSIM] [SPECGRIDS] [SPECSPHINX] [SPECTWIN] [SUPERACCU] [TUNEVARY]

RELEASE 7 NEW - COMPLEMENTS [TD]: [ECHOES] [FILTRAGE] [ITERLINE] [ITERLINEF] [NEWDELAY] [NEWTEX] [TREMOLO2]

RELEASE 7 NEW – MULTI-CHANNEL [TD]: [FRACTURE] [PANORAMA] [TANGENT (Group)] [TRANSIT (Group)]

RELEASE 7 NEW - RHYTHMIC [TD]: [CERACU] [SHIFTER]

RELEASE 7NEW - OTHERS [TD]: [CANTOR] [CHANPHASE] [ISOLATE] [MADRID] [NEWSYNTH] [PACKET] [PARTITION] [SHRINK] [SILEND] [SUBTRACT]

ALGORITHMIC [MIDI / CSOUND / SNDFILE]:

[TABULA VIGILANS] SCRIPT **(Command line: 'tv …')** | Generate algorithmic MIDI score files; play in real-time, | or *Csound* score files for use with SNDFILES, | or call CDP sound processing module with algorithmic | parameter handling

GRAPHIC [TD]:

[GRAINMILL]	SNDFILE	0 **(Command line: 'grnmill')**	| Granular manipulations of a soundfile. (PC only)
[BRKEDIT]	TEXTFILE	0 **(Command line: 'brkedit')**	| Graphic creation/editing of a breakpoint file. (PC only)
[PROCESSPACK]	SNDFILE	**(Command line: ProcessPack')**	| GUI for some sound processing functions complementary to CDP, | with drawscreen facility – *optional purchase*.
[SOUND LOOM]	GUI	**(Command line: 'soundloom')**	| Graphic font end for the CDP programs. (MAC & PC)
[SOUNDSHAPER]	GUI	**(Command line: 'soundshaper')**	| Graphic front end for the CDP programs (PC only, Lite or Pro) | (Lite is bundled with the CDP software, *Pro is an optional purchase*)
[VIEWSF]	SNDFILE	**(Command line: 'viewsf insndfile')**	| Graphic display of soundfiles & sonograms. (PC only)

Reference for Various Input Filetypes

(Also see *CDP Files & Codes* [*filesfrm.htm*] for full details about the input files used in the CDP System)

ANYFILE = any of the filetypes listed below

FILETYPES include:

ANALFILE	**.ana**
BRKFILE	**.brk (**or **.txt)**
ENVFILE	**.evl** (binary) or **.brk** or **.txt** (text)
FORMANTFILE	**.for**
MIXFILE	**.mix** or **.mmx**
PITCHFILE	**.frq**
SNDFILE	**.wav** or **.aif** (and the **.aiff** / **.aifc** variants)
TEXTFILE	**.txt** (or **.brk** or **.tun**)
TRANSPOSFILE	**.trn**

BINARY6 = any of these (binary) formats:

ANALFILE	**.ana**
ENVFILE	**.evl** (binary) or **.brk** or **.txt** (text)
FORMANTFILE	**.for**
PITCHFILE	**.frq**
SNDFILE	**.wav** or **.aif** (and the **.aiff** / **.aifc** variants)
TRANSPOSFILE	**.trn**

Tabula Vigilans (R Orton)

SCRIPT	**.tv** (a text file = a 'script' of algorithmic musical programming)

Csound (B Vercoe)

CSOUND	**.orc** (orchestra textfile), **.sco** (score textfile) or **.csd** (both), and an optional SNDFILE