CDP Release 6
Sound Transformation Software
~ PC ~

Key Features

- **Platform** – Supports Windows 98, 2000 and XP, VISTA and Windows 7 (both 32-bit and 64-bit) with any soundcard that handles standard wav files – duplex and multi-channel recommended. Any recent PC will be suitable. Faster processor speeds and larger memory modules will enhance performance.

- **Purpose** – The CDP software is all about 'sound transformations', i.e., gaining access to the inner sonic data of existing (sampled) sounds in order to shape altered versions or create altogether new sounds. It is designed for all who love to explore sound, the sound design professional, electro-acoustic composers and music technology courses.

- **Access** – The software can be accessed in 3 different ways:

    1. The *Soundshaper* graphic user interface, the 'standard' version of which is bundled with the CDP PC software. Written by Robert Fraser, it features a soundfile player at the heart of its main window, and access to all functions via drop-down menus.

    2. The *Sound Loom* graphic user interface, also bundled with the CDP PC software. Written by Trevor Wishart, it is modelled on the working methods of this well-known composer, and creator of most of the CDP sound transformation functions. Uses TCL/Tk.

    3. A standard PC command line interpreter (MS-DOS). This opens the way to processing multi-command sequences of operations (and building your own libraries of them), as well as access for visually impaired users.

- **Time-varying** – One of the most important features of the software is its support for time-varying parameters, realised by means of user-defined 'breakpoint' files. This gives users precise and flexible control over automation.

- **Reference** – Extensive on-line reference documentation in HTML format.

- **Tutorial** – The CDP software comes with a number of Guide, Tutorial and Demo materials both for the whole system and for specific programs, with many sound examples. There are also two special Tutorial Workshop CDs as optional purchases. The first CD provides about 180 worked examples with soundfiles relating to different parts of the CDP software. It comes with a printed document. The second CD focuses on the different types of musical structure that the TEXTURE Program Set can create. It comes with many sound examples and two laminated charts.

List of Program Groups

BLUR	smooth over or rearrange parts of a soundfile – useful for ambient effects
COMBINE	put together sonic data from two sounds in various ways
DISTORT	23 different applications of Trevor Wishart's wavecycle distortion technique
ENVELOPE	standard envelope functions, envelope data manipulation and associated utilities
R6: ENVNU	facilities for a true exponential decay and to isolate peaks in a sound
EXTEND	make a sound longer by various segmentation techniques
FILTER	standard filter functions, plus special time-varying and user-definable operations
FOCUS	emphasise parts/features of a sound – includes hold and step functions
FORMANTS	formant extraction and vocoding (impose formant pattern of one sound onto another)
GRAIN	extensive series of operations on 'grain'-sized portions of soundfile – also see the 'Extra': *GrainMill*
HILITE	pick out features of sounds or sonic data – includes imposing vowels on a sound
HOUSEKEEP	useful functions for handling sound *files* and file properties, such as channels, sample rate, copy etc.
MODIFY	wide-ranging series of programs to deal with transpositions, loudness, brassage, types of echo ...
MORPH	gradual transitions between sounds in 3 different ways
R6: MULTI-CHAN	14 new programs to handle / compose with multi-channel soundfiles
R6: ONEFORM	3 new programs for specialised tasks with formants, including imposing a single formant on another sound and generating a new sound from a pitchfile and a single-moment-formant
PITCHINFO	information about binary files containing 'pitch traces', i.e., an outline of salient pitch movement in an analysis file
PITCH	specialised facilities for manipulating pitch data, such as tuning a frequency data to a specific chord
PVOC	analysis and resynthesis 'engine' developed from the CARL original – this remains a public domain program; CDP's Pvplay (Dobson) plays analysis files without reconverting back to a soundfile.
REPITCH	extensive range of programs to shape pitch trace data
REVERB	a variety of ways to create reverb effects, incl. (user-definable) room responsiveness
R6: R6OTHER	11 new programs, including fast convolution and the 14-mode RETIME to rearrange and retime events with a soundfile
SFEDIT	utilities to edit and splice soundfiles, including segmentation rearrangement and separating out vocal syllables
SNDINFO	information about soundfile properties, such as length, maximum amplitude ...
SPEC	utilities for editing analysis files
SPECINFO	information about analysis file data
R6: SPECNU	4 new programs to help with cleaning noise from soundfiles

STRANGE	unusual effects applied to analysis data
STRETCH	elongate a sound or spectrum without changing its pitch
SUBMIX	range of techniques to mix sounds, create and alter mix instruction files, and set up 'panning' movements between speakers
SYNTH	a few utilities to create test tones, noise and silence
SYSTEM	some basic utilities to list, record, play, copy soundfiles (with format conversions)
TEXTURE	create multi-event textures from one or several soundfiles, with 20+ shaping parameters, most of which can change data over time. This powerful set includes snapping to a user-defined harmonic grid (chord) and even moving between harmonic grids.