The CDP Composing Environment

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Abstract
The CDP System is a powerful collection of programs with which to transform sounds, whether to create various sound effects, or complete electro-acoustic compositions. It is primarily designed for the professional electro-acoustic composer or sound-designer, and offers facilities on the desktop which were previously only available inside major musical research institutions, including programs which transform sounds in the spectral domain, musically-oriented distortion programs, and the more traditional time-domain transformations.

Introduction
The Composers' Desktop Project (CDP) has been engaged in bringing a wide range of specialised tools for sound transformation and synthesis to the general user since 1986. For a description of the early development of the Project, see Atkins. The CDP is committed to making state-of-the-art sound processing software available to those working with sound both inside, and especially outside of educational and research institutions, and as part of this goal has always used computers which are affordable by individuals. Together with its extensive documentation, the CDP System provides a vast array of powerful and practical tools for processing sound which have been developed in response to the needs of composers working in the field on a daily basis.

The CDP System: 4 Main Components
1. The Groucho Suite. Nearly 100 programs for signal processing in the time-domain, ranging from simple utilities to a sophisticated braasage program, granular synthesis programs, filters and a suite of distortion programs.
2. The Spectral Suite. Mark Dolson's Phase Vocoder, and more than 25 programs for the transformation of the analysis data.
4. Algorithmic Composition. Cownd score design with Cacore, Remix, Scorp and Wedge. Tabula Vigilans, Richard Orton's exciting new rule-based algorithmic composing system will be available soon, including support for composition using concrete sound, Midi, and Cownd.

Affordable Platforms
The CDP system was developed on the Atari-ST where it was the first affordable hard-disk recording system on a personal computer. Currently it is available on:
- IBM PC compatible systems using 386, 486, Pentium™, or compatible processors with hardware floating point. Running MSDOS/Windows 3.1 (or higher), Windows NT or Windows 95. These machines provide excellent performance for a very affordable price, and interworking with superb multimedia design facilities. Sound can be input and output using standard soundcards, or using
mastering-quality interfaces from Digital Audio Labs or Creamware. IBM PC compatible portables finally make it possible to take the system wherever you go.

- Silicon Graphics Indy™ and Indigo™ Unix workstations. For the very best performance and built-in digital audio interfaces, these workstations are particularly appropriate for research, educational institutions and large studios.

- Atari Falcon030. For people requiring compatibility with the vast array of Atari-based music software.

We continue to support existing users on Atari ST and TT computers, but no longer make the Soundstreamer and DATDeck interfaces which allowed these computers to work with digital sound. We are constantly reviewing new platforms which would complement our current range.

CDP - A Co-operative Project By and For Musicians With A Fascination For New Sounds

CDP has members in more than 21 countries all around the globe. As the facilities of the system have developed more and more important new music is being created with its assistance, with prize-winning examples including Jukka Tiensuu’s Tokko (UNESCO International Rostrum of Composers, Paris), and Trevor Wishart’s 25-minute Tongues of Fire, which was premiered at the Bourges Festival, and won the 1995 Luma Arte Electronica first prize.

As well as providing many of the CDP program, Trevor Wishart has also recently finished a book, Audible Design (Wishart), which describes many of the transformations in the CDP System, gives some of the more important theoretical background, and contains many useful hints and tips together with discussion of the artistic implications.

The CDP system has evolved over 6 years from the experiences and requirements of working electro-acoustic composers, many of whom have contributed software personally, to cover a vast range of sound processing and synthesis, however these demands are limitless and the system continues to evolve as composers constantly push forward into new vistas of sound.

The CDP Project offers support to its users via email, telephone, and a newsletter, and encourages users to meet and help each other to discover new uses for the system. Users are also encouraged to write their own processing modules using CDP libraries, and contribute new ideas to keep the system at the cutting edge of musical sound processing.

References
