CDP: Composers' Desktop Project Ltd. – A Social Enterprise
48 Ladysmith Road, Plymouth, Devon PL4 7NL England
Tel.: 01752 965086 cdpse9@gmail.com www.composersdesktop.com

CDP Installation Notes - PC

The Installation

To install the full CDP System Release 8 for PC, download one of these two files:
- **CDPRelease8_PC.zip** - which includes the offline documentation
- **CDPRel8Lite_PC.zip** – as above, but without the offline documentation

The documentation can be downloaded separately:
- **CDPR800documentationPC-MAC.zip**

All of these are downloaded *via* the CDP Downloads page: **https://unstablesound.net/cdp.html**

Step 1
- Download **CDPRelease8_PC.zip** or **CDPRel8Lite_PC.zip** to any folder and unzip it.
  The zip file should contain an installation **.exe** file (a self-extracting zip) and some documents, including this one.

Step 2
- Double-click on the installation **.exe** file: **Install_CDPRelease8_PC.exe**
- or **Install_CDPRel8Lite_PC.exe** , as appropriate
  for the CDP software, plus *SoundLoom* and *Soundshaper* GUIs

Step 3
- Enter the folder to extract the files into (see the screenshot below)
  C:\CDPR8 is pre-selected, but you can change the drive or the folder name as you wish.
  If the folder does not already exist, it will be created.
  Warning: do not choose **Program Files** or any folder with a space in the name!

- Click **Unzip** to extract the files. (Normally also tick "Over-writing files without prompting".)

The Installer dialogue:

WinZip Self-Extractor - InstallSoundLoom1704_PC.exe ✕

To unzip all files in this self-extractor file to the specified folder press the Unzip button.

Unzip to folder:

C:\CDPR8   [Browse...]

☑ Overwrite files without prompting

[Unzip]
[Run WinZip]
[Close]
[About]
[Help]

If upgrading from CDPR7, your are strongly advised to install into a fresh folder CDPR8.
An installation into an existing (possibly renamed) CDP folder could lead to a messy collection of old and new files.

Step 4 – Documentation (if not already intalled)
- Download **CDPR800documentationPC-MAC.zip**

- **Normally extract the zip to your CDP folder** (e.g. \CDPR8)
  It can be unzipped to a different folder if you like.
  Or, you may want to bypass Step 4 and just use the online docs at
    https://www.composersdesktop.com/docs/html/cdphome.htm

Your basic installation is now complete.

Your chosen folder (e.g. **C:\CDPR8**) is your **base CDP folder** and in a normal installation everything is placed within it. Take a note of it, especially if you are installing *Soundshaper* – you will need it to configure the program.

Within the **CDP folder** the main sub-folders are:

- **_cdp** – contains the CDP software: in **_cdp_cdprogs.**

  For *SoundLoom,* there are further subfolders within **_cdp,** listed in **CHECK INSTALLATION**

- **\docs** - the offline CDP documentation, as downloaded above.

- **\docs-pdf** – the documentation in PDF format.

- **\Soundshaper6 –** the folder for *Soundshaper,* as downloaded above

- **\TXT** – also installed by Soundshaper, for its text files

See the document **CHECK INSTALLATION** for further details.

Configuring CDP for PC

You can run the CDP system from a User Interface or via the Windows **Command Processor** (CMD.exe), but all CDP processes are based on command lines, so the following is relevant to *Soundshaper* and *SoundLoom* as well as CMD use.
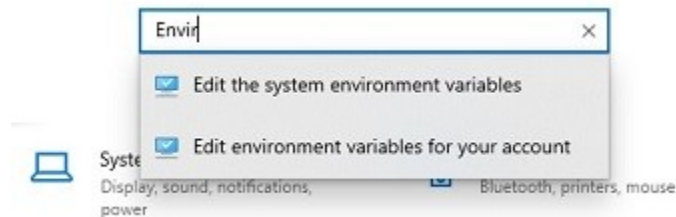
Set the Path

In **Windows' Control Panel,** you will need to set **Environment Variables**, which are default values used by CDP, whether it is run from a Graphical User Interface (GUI) or the Command Line.
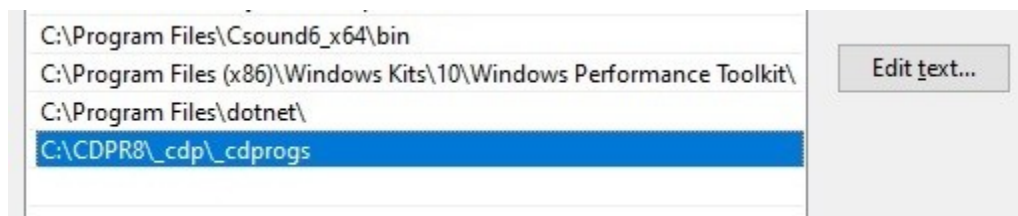
Soundshaper sets these for you according to its program settings, but it is recommended also to set them at the PC System level.

Windows 10 and 11:

- In the Windows Search Box or Settings "Find a setting", start typing "Environment". The following should appear:

- Select **Edit the system enviroment variables** and then click the **Environment Variables** button.
- In the bottom pane **"System Variables"**, select **Path** and click **OK**.
- In the next window **"Edit Environment Variable**, click **New** and then type in the path to **_cdprogs**:

- Click **OK** and again as necessary to leave Windows Settings.

Pre Windows 10:

- To set the Path for Windows 2000-8.1, go to:
  Control Panel > System > Advanced System Settings > Environment Variables
- In the UPPER pane, select the **Path** line and click **Edit**.
- Put a semi-colon (';') after the last entry (if necessary) and then add the CDP programs path, followed by a semi-colon.
  The path chould be **[drive-letter]:\cdpr8_cdp_cdprogs** (e.g. **C:\cdpr8_cdp_cdprogs**).

Setting the Memory 'buffer' size (optional, or as required)

The 'buffer' here means temporary storage space used during the operation of a program. Some programs require a great deal of buffer space and may complain that there isn't enough.

In the UPPER pane of **Environment Variables** , enter as **NEW** the variable name **CDP_MEMORY_BBSIZE** and the value **1024**. This value may need to be expanded if performing certain operations, such as FILTER ITERATE on very large soundfiles.
In *Soundshaper*, it can be set and adjusted under Settings. If using *SoundLoom*, you will need to set it here, under the Control Panel Advanced settings.

Setting a 'temporary' soundfile which can be overwritten (optional)

For command-line use, you can also set an environment variable so that you can use a specific named soundfile as a temporary file which can be overwritten.

The idea is that you can try out a program with various parameter changes without having to change the name each time, and without creating lots of different soundfiles. When you find one you want to keep, you just rename it or make a copy of it. The disadvantage of this is that you can't compare the results with a previous version, and if you have not noted what the previous parameters were, you may never be able to reconstruct the former version.

The environment variable is **CDP_OVERWRITE_FILE** and its value is the name of your proposed file, e.g., **test.wav**. The extension (.wav) here appears to be mandatory, even if it is not used in the command line or in a batch file. (This temporary soundfile option is not applicable to *Soundshaper*, which outputs temporary files in any case and erases these when they are altered.)

Desktop Shortcuts

You are recommended to set desktop shortcuts, as appropriate:

      COMMAND-LINE:
- Windows Command Processor (**CMD.exe)** , for command-line use.
  This is found in **Windows\System32**, or you can make a copy of it to a working directory (folder) of your choice.
  You may sometimes find it useful to be be able to run a CDP program within command-line, even if you normally use a graphical interface.

      GUIs:
- *Soundloom.exe* (found within _**cdp**), if using the SoundLoom GUI
- *Soundshaper.exe* (found within **Soundshaper6**) , if using the Soundshaper GUI

      DOCUMENTATION:
- **docs\CDP_HOMEPAGE.html**, for the documentation Home Page and or
- **docs\index.html**, for the documentation Main Index

Getting Started with *SoundLoom*

Double-click on **soundloom.exe** within **\CDPR8_cdp** or click a shortcut you've made to this.

For *Soundloom,* the location of the CDP executables is automatically set to
      C:\cdpr8_cdp_cdprogs
If you need to change this, for example of your CDP base directory has a different name or location, you are best advised to do this from within *SoundLoom:*

System State (top right corner*) ->* **SYSTEM SETTINGS 2 -> SET DIRECTORY for CDP PROGRAMS**
If absolutely necessary, you can edit *execloc.cdp* − **cdpr8_cdp_cdpenv\execloc.cdp**

Introductory documents
You are recommended to start with Archer Endrich's basic **SoundLoom Guide** **(***SLguide-basic.pdf* **),** which introduces you to *SoundLoom's* layout and operation, explaining the basic operation of the three panels and has two worked examples, one for the Time Domain (sound files) and one for the Spectral Domain (analysis files). You can access this from the CDP documentation's **GRAPHIC** page. (If online, you can save the displayed .pdf to download it).

Sound Loom is designed as an 'intelligent' interface. Among other things, this means that it 'knows' what inputs should be present to run a given process. If they are not all present in **CHOSEN FILES**, that process remains greyed out. If this happens when you expect to run a process, double-check the inputs required by looking in the Desk Reference or the HTML Reference Documentation. To do this you may need to figure out the program/process name in these documents that matches the *Sound Loom* name, as they aren't necessarily the same. *Sound Loom* names tend to be more descriptive.

Also see Trevor Wishart's **User's Guide to the Sound Loom & CDP** (*twSoundLoomGuide.pdf)* which is a comprehensive overview of using the CDP software from within *SoundLoom,* and the **SoundLoom Reference Manual**, also by Trevor Wishart. Both of these are accessed from the documentation's **GRAPHIC** page. *twSoundLoomGuide.pdf* is also found in the top level of **CDPR8\docs**.

There is a further **SPECIAL HELP** section for **SoundLoom,** accessed via the documentation **TUTORIALS** page (under the EXPLAIN tab), covering more specialist aspects of the program.

Working directory
It is a good idea to create **your own working directory** and put some soundfiles in it, e.g., using a project name as its name.

Create a directory (folder) on your computer, then in *Soundloom* use **Find Any Directory** to select your directory (NB: click on **Select**, not Open), then **Grab** a file and **Use on Workspace** as explained in *slguide-basic.pdf.*
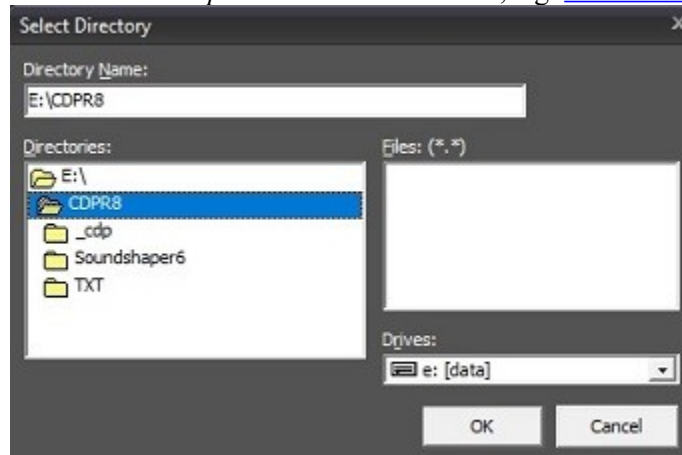
Note that you can **Play** a sound or analysis file in a Process's parameter dialogue. When it does this, it is playing a temporary file ('cdptest0'). If you are not satisfied with it, you can alter the parameters and run again. The resulting sound or analysis file is not stored on your computer until you **Save As.**. In *Soundloom*, when the output is an analysis file I (AE) tend to put .'ana' (for 'analysis') in the root name to ensure that in future I know it is an analysis file.

Configuring *Soundshaper*

Configuring Soundshaper is described step-by-step at https://www.soundshaper.net/support.html and is summarised below.

Double-click on ***Soundshaper.exe*** within **\CDPR8\Soundshaper6** or click a shortcut you've made to this. For first use, you must set some essential folders:

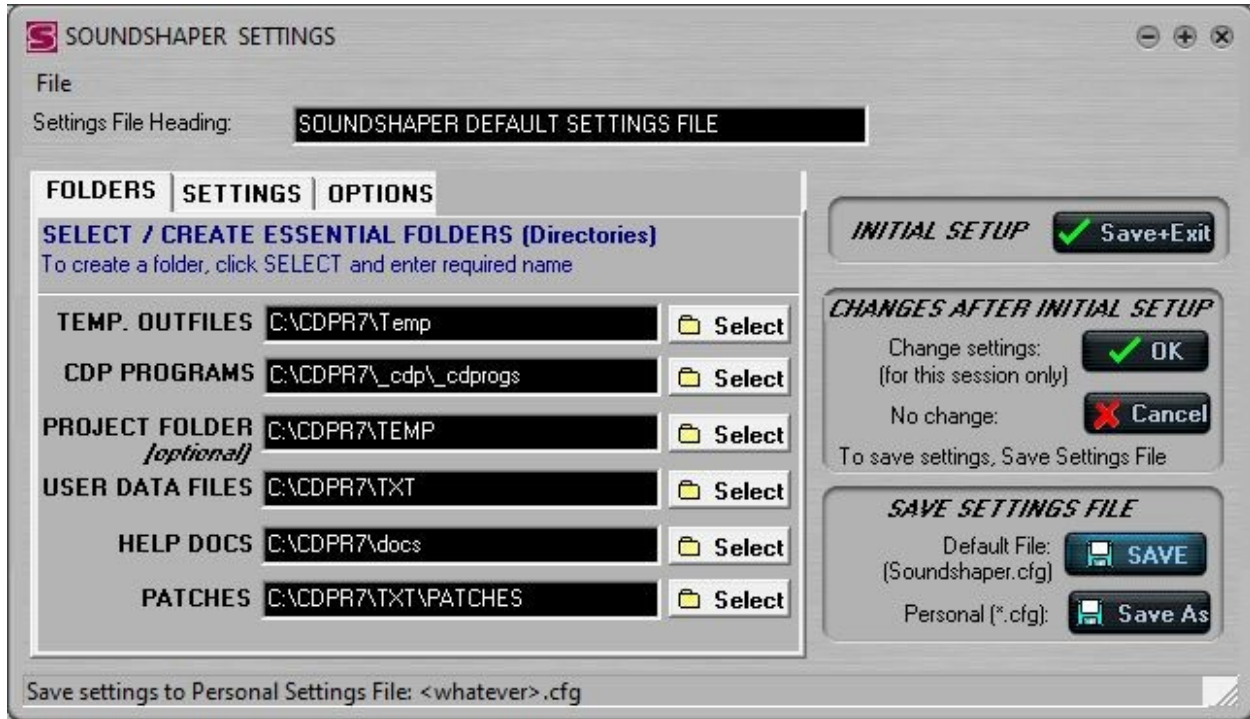- The main one is to tell *Soundshaper* the base CDP folder, e.g. **C:\CDPR8 :**

- *Soundshaper* should then be able to find the CDP programs in **CDPR8_cdp_cdprogs**.

- Next, it asks you to set or create a folder for **Temporary Output Files.** Although the default for this is <CDP base folder>**\TEMP**, it can be a folder on any drive and this is generally recommended.

- The next step is to tell it where to find your **User Data Files.** These should already have been installed in **CDPR8\TXT**, and it should suggest this**.** This folder is for files and presets associated with each *process,* including default ones. You will probably also save your own data files in folders associated with a particulat *project.*

- Finally it asks where to find the CDP Documentation (HELP DOCS). You are best to enter **CDPR8\docs** for this, even if you haven't yet downloaded the offline documentation or intend to use the online version (which is always up-to-date).

At this point, Soundshaper creates a default configuration file ***Soundshaper.cfg*** which it uses for storing all of your Settings. (It does not use the Windows Registry.) You can edit this in the **Settings Page** at any time (Settings icon/ Options > Settings / or F5).

You should also visit the **Settings Page** to make further choices – see the screenshot below.
The Settings are described in the supplied file ***Setup_Soundshaper.pdf*** found in **Soundshaper6\DOCS** .
Settings can be saved art any time, either to update the ***Soundshaper.cfg*** file, or just to change Options etc. for the current session.

Soundshaper Settings:

Project Folder
One folder you should consider nominating in *Soundshaper's* Settings is a current **Project Folder**. This can be changed as often as required, within a session. The setting is mostly used for Open and Save File operations. As *Soundshaper* saves all output as temporary files, it can save time to have the current Project Folder pre-selected when you come to save a permanent named copy. Another option is to put one or more desktop shortcuts in this folder and quickly navigate from there to any number of different folders.

Personal Configuration File
Soundshaper can also load alternative settings (a personal configuration file) on startup. This is the method preferred byArcher Endrich for handling different projects. He uses one **.cfg** file for each aspect of a project (e.g., one for source soundfiles and their initial transformations, one for the transformations of particularly important source files, one for mixes, etc.), and within each one sets Temp. folder, Text-data Folder and Project Folder to the same folder.

To make the list of available configuration files come up when you open *Soundshaper* going to **Options >
Settings** , and then select the **OPTIONS** tab and tick **Alternative Settings.** At the bottom right of the main Settings page, there is a **Save As** button for **'Personal.cfg',** for saving a personal config. file.

Help Manual and CDP Help
The *Soundshaper* Manual is currently included in the CDP Documentation download and after unzipping is found in **cdpr8\docs\Soundshaper**; the index is *MANUAL.html*. The Manual can also be accessed from within *Soundshaper*. *Soundshaper* also links to the CDP Reference Documentation: the CDP name for each process is shown in the bottom right corner; clicking on this brings up the page for that process

Command Line Use

CDP programs are written to run in a Command-Line Interpreter (CLI). All CDP processes and functions are invoked via a command line and the Reference Documentation describes the CDP command line(s) for each process. Even the graphical interfaces construct command lines from the information you provide in their dialogue boxes. They then pass this command line to the underlying command prompt for processing that CDP .function behind the scenes.

Once you have set up the path to **cdp\cdprogs** in Windows' Control Panel (see p.3 above) you can run CDP programs from the Windows Command Processor (**CMD.exe**). The command-line environment enables you to access CDP at the lowest level, for example to run **system functions** such as DIRSF or COPYSFX, to **create batch files** (PC) which can be used to run several processes at once, or to control CDP programs in a more algorithmic way via a **scripting language.**

Working directory
It is be a good idea to create your own **working directory** (folder) and put some soundfiles in it, e.g., using a project name as its name.

From the **command line**, **cd** to the directory you want to use. Enter **dirsf** (a CDP utility) to get a listing of the soundfiles in your directory. If the list is displayed, your CDP system is working properly.

Then try a simple command such as `modify speed 2 yoursoundfileIN.wav processedsoundfileOUT.wav -12` to lower the sound by an octave. Listen to it with `pvplay processoundfileOUT.wav`. The wav extension is required with **pvplay**, and hearing the lowered sound will confirm that CDP sound transformation processing is up and running. **Pvplay -i** will play a sound or analysis file immediately, without user intervention.

A typical command-line for CDP is:

> *program_name infile(s) outfile parameters [flags]*

where *flags* are options you can set. Many parameters are also optional.

Command Line use is described more fully in the document ***Running the CDP System***, accessible from the Tutorials Page of the CDP Documentation.

Batch Files

Batch files are scripts (constructed in a text editor like Notepad) consisting of one or more CDP command lines, optionally mixed with standard statements from the Windows CMD language.

A whole process chain can (in theory) be run as a single script from a batch file, although in practice there are often specific aspects of CDP programs which cannot be adapted so easily. For example, if you use the command CUT from 0 to 6 secs and run this with an input file of 4", it will naturally fail.

See ***Running the CDP System*** for more details on how to construct batch files. Also the tutorial examples in the ***Sound-Builder Templates***: six examples of batch file scripts for process chains, accessible from the TUTORIALS Page of the CDP Documentation.

Getting Started with CDP

The CDP System is a rich toolkit of many different processes. Some of these may be familiar from other software, but others are more unique and "experimental". To help you get started, we have provided tutorials and other documents within the CDP documentation (TUTORIALS page).

T he materials provided approach the software in two ways:

- Describing the available CDP processes, or selections of these, and how you might use them.

- Worked tutorial examples, for use with *Soundshaper*, *SoundLoom* or Command-line, often for all three.

For details see *Introducing the CDP Sound Transformation Programs,* which is the main follow-up document to this one. This document also includes general hints and tips on using CDP.

Checking the Installation

To check your CDP installation, please see **Check_InstallationR8-PC.pdf**.

 This document summarises the folders found in a full CDP installation.

 \

Website Links

- CDP Website: **https://www.composersdesktop.com**
- CDP Downloads: **https://unstablesound.net/cdp.html**
- CDP Docs online: **https://www.composersdesktop.com/docs/home.html**
- CDP Users' Forum: **https://unstablesound.net/cdpforum/**
- Soundshaper download: **https://www.soundshaper.net/dloads.html**
- Trevor Wishart's website: **http://www.trevorwishart.co.uk**
- Richard Dobson's website: **http://www.rwdobson.com**

Some of these links may be brought within the CDP site in future.

[Archer Endrich & Robert Fraser - updated April/ Sept. 2023 for CDP Release 8].