



Sound Loom Guide: Initial User Orientation

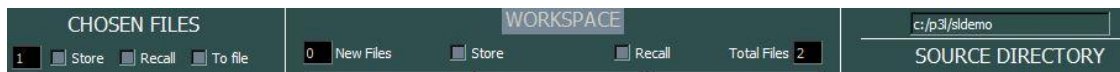
slguide-basic.pdf by Archer Endrich,

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1. Introducing *Sound Loom*

Much of the information in this document is also covered in other places in the CDP documentation. It provides a concise overview of how to get started with *Sound Loom*, with special reference to the three panels of the main screen, from right to left: SOURCE DIRECTORY, WORKSPACE, and CHOSEN FILES.



This introductory guide will concentrate on basic operations pertaining to these three panels.

Sound Loom is designed to be a composer's working environment. Its design provides behind the scenes intelligence, i.e., keeping track of what *type* of file you are using and what actions you have performed. With that information it builds a comprehensive database and set of links that help you to use and re-use files and processes easily and successfully, by:

1. **activating** only the processes which can be used with the specified input file—which can be a Catch-22 if you don't already know what file inputs a particular process requires. When in doubt, use the **Help** button or check the Usage for that process in the CDP Reference Documentation.
2. **accessing** and storing the properties of a file, such as duration, number of channels & sample rate if it's a soundfile, so that it can automatically 'pull out' that information and utilise or display it when needed.
3. **storing**, or calculating from the input file properties, the range of the parameters for your current process, hence determining the permissible range for slider bars, breakpoint file displays and so on. Sometimes the CDP software will allow values outside the normal range. This enables experimentation with extremes.

A composing session will constantly move around a variety of processes and editing functions. *Sound Loom* is right with you all the way, providing the information you need once you've chosen a certain operation with a given file or set of files.

SOUND LOOM is a TCL/TK application and current versions have it 'built in'. Therefore, TCL/TK does not need to be installed elsewhere on your computer.

Please note that there is a **Help facility** on every page, showing the role of many of the items visible on the page. For information about the **parameters** of a particular function, click on the INFORMATION button on the Parameters page: i.e., on the process function page where you actually see the parameters and enter the values.

This *Guide* assumes that both CDP and *Sound Loom* have been correctly installed. As a failsafe, information about installing *Sound Loom* and how it fits in with the overall CDP environment is placed in an Appendix at the end of this document.

2. Launching *Sound Loom*

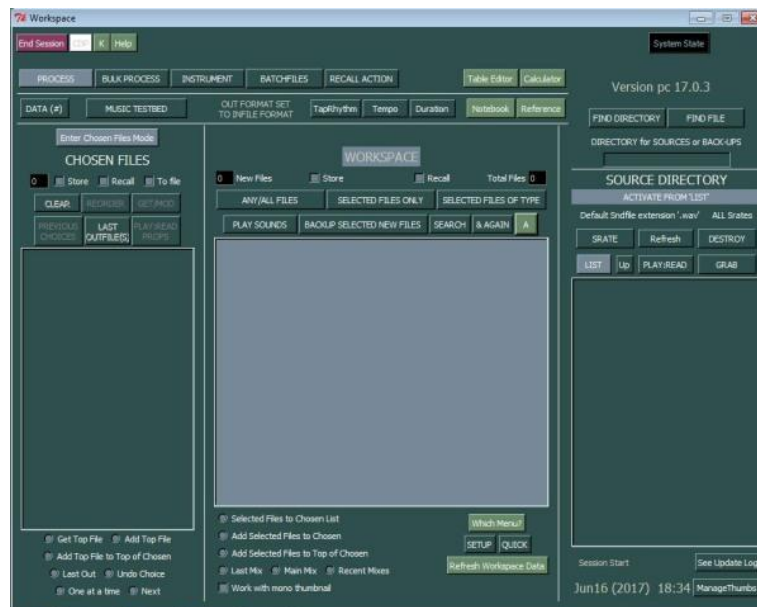
In the past it has been necessary first to ensure that the environment variable CDP_SOUND_EXT has been set. This would have been done when installing the CDP software. As of Release 7.1, this is no longer necessary. When it is missing, you are likely to get the message "cannot open soundfile 'cdptest0'" when trying to create the output of a process.

The *Sound Loom* is launched by double-clicking on its app (MAC) or *soundloom.exe* (PC), preferably from a Desktop shortcut.

There are few things to confirm or set when you first launch *Sound Loom*, as prompted. If MIDI connections are not in place, *Sound Loom* complains about it, but carries on.

3. Core *Sound Loom*—the 3 panels and what they do

When *Sound Loom* opens, you are brought to the **main screen**. There are some buttons across the top, and below them, the 3 panels mentioned above.



The following outlines what happens in each Panel. This is repeated in detail in the worked example of Section 4.

SOURCE DIRECTORY - Panel on the Right Side

- The panel on **the right** is the SOURCE DIRECTORY. This is where you access the files you want to use.
- Usually, this involves clicking on **Find Directory > Any Directory**. A list of directories will appear, and if you need to go up a level, use the yellow button with an up-arrow in it. This button is in the top right hand corner of the **Find Directory** window. When you have located and highlighted the correct directory, click on the **Select** button.
- All the files contained in the selected directory are now listed in the right hand SOURCE DIRECTORY panel.

- To move files you want to use in the current working session to the WORKSPACE, click on it/them (hold down the Shift key to make multiple selections) to highlight it/them and then
- click on **Grab > Use on Workspace**. The file(s) will now appear in the central panel.

WORKSPACE: Panel in the Centre

- The large **central** panel is the WORKSPACE. The WORKSPACE will list 'shortcuts' to all the files you wish to use in today's session (you can of course alter the list as you work). The files themselves remain in their original directories.
- The WORKSPACE will also list all the new files that you create.
- These new files are automatically saved in `/_cdp` until moved to your project directory with a backup operation.
- In general, the *Sound Loom* only 'knows about' files listed on the WORKSPACE.
- The presumption is that you back up your files to a project directory at the end of a session, but it is OK to leave them where they are (in `/_cdp`) until an appropriate time to move them.

CHOSEN FILES: Panel on the Left Side: Processing

- During the session you will select particular files (or groups of files) from the Workspace for sound transformation processing.
- The panel on the **left**, the CHOSEN FILES, lists the file or files you are about to process.
- To bring a file to CHOSEN FILES, first click on the **Enter Chosen Files Mode** button and then click on a file or files in the WORKSPACE.
- The file(s) selected are now listed in the left panel and available for use by a CDP process.
- To run a CDP program, click on the **Process** button and select from the page of buttons the process you want to use with the file now in CHOSEN FILES.
- Only the buttons for which this/these file(s) is/are a valid input will be highlighted. Note that some functions require two (or more) input files or have to be analysis files or mono. Some functions use text files as inputs.
- The selected CDP function dialogue now opens. Besides setting parameter values, supplementary text files such as breakpoint files, can be created or loaded in this dialogue.
- When everything is set, click on **Goto Run** and then **Run** in the new window that opens. This window enables the system to display any error messages that the CDP function may generate.
- If it runs without error, you are returned to the function dialogue where you can **Play** the output and, if you want to keep it, **Save As**.
- Saved files will be displayed on the WORKSPACE which you get back to from the function window by clicking on **ToWorkspace: New Files**. Otherwise you can run the same process again or select another process to use on the same input file.

BACK ON THE WORKSPACE

- Your new (saved) outputs, now listed on the WORKSPACE, are still stored in `/_cdp`.
- To back them up to the directory in the Right Panel (your current project directory), make sure you are back on the WORKSPACE (i.e., now longer in **Chosen Files Mode**). Note that the **Get Chosen Files Mode** button toggles (changes back and forth) with **Wkspc: get new files**.
- Click on the file(s) you want to back up to highlight them, and then click on **Back up Selected New Files > Store Files**.
- You will see the path to the stored directory being added to the filename (shortcut) on the WORKSPACE.
- The **Refresh** button in the Right Panel ensures that the listing shows all the new, backed up file(s).

At the end of your session, the WORKSPACE and the CHOSEN FILES list will be remembered, and will appear again at the start of the next session (unless removed by deletion or by a backup and clearing), i.e., you will not need to load up the Workspace from scratch every time you use the *Sound Loom*, but you will need to do this the first time you use it. This is part of its functionality as an 'intelligent' interface.

The following section illustrates the operation of these 3 panels with a worked example.

4. Operations on sound files in 18 steps: a worked example (Time Domain)

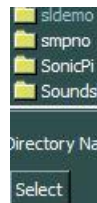
4.1 The first step is to create a working directory on your computer for a sound transformation project. Place one or more soundfiles in this directory. For this *Guide*, the working directory is 'sldemo' and the source file is *spring.wav*.

4.2 Now open *Sound Loom* (answering any questions it may ask) until you are at the main screen.

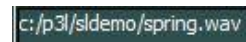
4.3 Right Panel: select the working directory you just created and show the file in it: **Find Directory > Any Directory**—browse to it and click on the **Select** button at the bottom left. You will now see the files it contains listed in the space provided on the Right Panel.



Navigate to directory

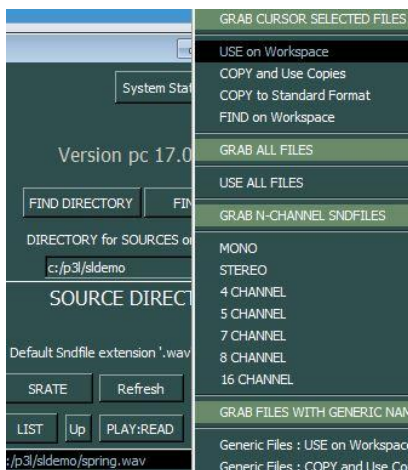


Highlight and Select



The file it contains is listed

4.4 The next step is to create a shortcut to this file on the Workspace. Highlight the file by clicking on it, and then click on **Grab > Use on Workspace**. It should now be in the Centre Window, the WORKSPACE.

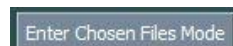


'Grab' the file and Use on Workspace



The file is now listed on the Workspace

4.5 Now the file is ready to be used. Click on the **Enter Chosen Files Mode** button (it toggles to display **To Wkspc: New Files** but *Sound Loom* is still in **Chosen Files** mode). Now, when you click on a file *on the Workspace*, it will appear on the **Chosen Files** list (Left Panel). (Clicking on a file in the **Chosen Files** list will remove it from that list, so don't click on it to highlight it before processing.)



4.6 Now you can click on your file *in the Workspace* to select it. It pops onto the Left Panel.



File listed in Left Panel

4.7 Click on the **PROCESS** button. A page of buttons for CDP functions appears, with only those for which the chosen file is valid highlighted. (For example, if it is a sound file rather than an analysis file, all the analysis-based – spectral – functions will be disabled, and *v.vs.*).



The process buttons

4.8 Select the **Pitch:Speed** button, which then shows several transposition function options; select **tape transpose by semitones**.



Raise or lower the pitch of a sound in semitone steps

4.9 The Transposition function dialogue. It uses the CDP program Modify Speed.



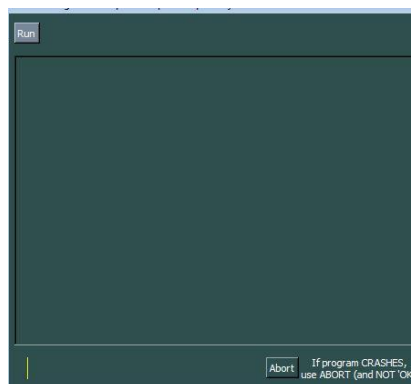
Enter '-18' (semitones): minus for lower (an octave and a half)

4.10 Click on **Goto Run**



Still in the function dialogue

4.11 The **Run** window opens, which will display error messages if there's a problem. Click on **Run**. If there's an error, take note of it and click on **Abort**. If the process runs, you will be returned to the function window.



Click on RUN in the top left corner

4.12 Back in the function window, click on the **Play** button to hear the result. (Note that this button will play both soundfiles and analysis files.) There is also a **Play Source** button. This plays the input sound so that you can compare it with the result of the processing.

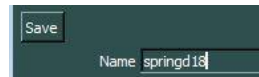


Play the result of the process

4.13 To complete the sequence of operations, click on **Save As** and enter a name, omitting the extension ('wav' or 'ana').



Save the result as a file

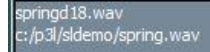


Enter a name for it

4.14 Now leave the function window by clicking on **To Wkspc:** **New Files**. You will see the new soundfile listed.



Still in the function dialogue



Processed file ('springd18.wav') is listed in the Workspace

4.15 Now leave **Chosen Files Mode** and return to the WORKSPACE by clicking on the **Return to Wkspc Mode** button.



Focus is now in the Workspace

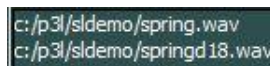
4.16 Now the WORKSPACE is active and the new soundfile is listed. The actual soundfile has been automatically saved in **/_cdp**. Looking in the **/_cdp** directory on your computer will confirm this.

4.17 Back up the file by highlighting it (click on it) and then on **Backup Selected New Files > Store Files**. This will move this newly processed sound from **/_cdp** to the current project directory (from which the source sound was selected).



File is highlighted, click on 'Store Files'

4.18 Look in the Right Panel and you will see your file listed there. Clicking on **Refresh** reloads the Directory and confirms the presence of the newly processed file.



Saved to source working directory

Double-check on your computer to confirm that the actual new soundfile is present in the current project directory.

Name	Date modified	Size	Type
spring.wav	15/04/2016 10:05	1,847 KB	Wave Sound
springd18.wav	17/06/2017 13:29	5,219 KB	Wave Sound

Image of the contents of the 'sldemo' directory on the computer

5. Operations on analysis files - a worked example in 13 steps: (Spectral Domain)

The 'spectral domain' is a name given to the processing of 'analysis files'. Using an FFT mathematical routine, the *time & amplitude* data of the 'time domain' are converted to *frequency & amplitude*. CDP has a great many processes that operate directly on frequency data and on the way it is stored in consecutive data 'windows'. For example, a sound can be stretched without making it lower, the frequencies can be tuned (snapped to a pre-define grid), and the data windows can be rearranged in various ways. Look for the word 'Spectral' in the menu options.

In the *Sound Loom* 'Available Process Menu' that is displayed after clicking on the PROCESS button, the Time Domain processes are at the top and referred to as 'Sound Processes' and the Spectral Domain processes are lower down and referred to as 'Spectral processes'.

In between these two is a single button labelled PVOC and referred to as 'Sound to Spectrum'. This is what calls the FFT routine, which will convert a soundfile to an analysis file (much larger), or back again ('resynthesis') from an

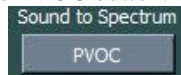
analysis file to a sound file. Soundfiles have the '.wav' extension and by convention in CDP, analysis files have a '.ana' extension.

While not a technical way to express it, there might be some merit in imagining the analysis file like a layer cake with a series of columns 200 ms wide and often having 1024 layers. The FFT routine searches through each of these frequency regions (sample rate divided by the number of layers) for a frequency contained in the source sound. Sometimes it finds one, sometimes it doesn't, and each frequency found (a 'partial' of the input sound) has an amplitude which is also stored. The spectral routines operate on this frequency and amplitude data, moving through the series of 200ms-wide 'columns'. The sequence of loudest partials across the whole length of the sound is the 'spectral envelope', something quite different from the amplitude envelope in the Time Domain.

EXAMPLE SPECTRAL PROCESS:

5.1 The starting point is the *spring.wav* soundfile in the Left Panel ready for processing (see steps 4.5 and 4.6 above).

5.2 Click on the PROCESS button and then on the PVOC button.



Click on the PVOC button

5.3 A new PVOC button appears on the left. Click on this and go select analysis > standard.



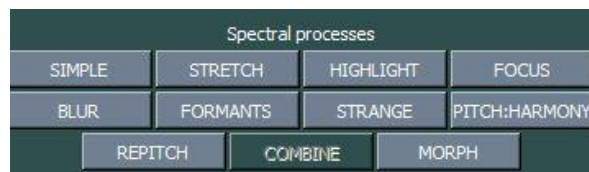
PVOC > analysis > standard

5.4 The function dialogue for PVOC is displayed. Run it ('Goto Run' button) with the defaults shown: Analysis points: 1024, Analwindow overlap: 3. More information about what these settings and other options mean can be found in the CDP Reference Documentation and in documents by Richard Dobson (...) and Leigh Landy (...).

5.5 Play the result –it should sound just like the original. SAVE AS *springana* and then click on 'To Wkspce: new files' to leave the function window. Click on 'Return to Workspace' to place the focus on the Workspace. the analysis file *springana.ana* should now appear there.

5.6 To make use of the analysis file for spectral processing, the soundfile in Chosen Files has to be cleared and replaced with the new file, *springana.ana*. To do this, click on ENTER CHOSEN FILES MODE as before, click on *spring.wav* in the left panel (it will be cleared) and then on *springana.ana* on the Workspace (it will pop up in the left panel). Now it is ready to be used by a spectral process.

5.7 Click on PROCESS. This time all the Time Domain functions are disabled and most of the Spectral Processes are enabled. The Combine button for example is not active because these processes take two inputs and there is only one in Chosen Files.



Spectral Process Group Buttons are activated

5.8 Select STRETCH > time > do time_stretch



Selecting the spectral time stretch

5.9 The Spectral Time Stretch dialogue opens. The amount of stretch needs to be entered. This is the 'Timestretchmultiplier'. The dialogue has 1.000000 by default (no change). Enter '2', i.e., double the length. (It can cause unwanted artefacts to try to stretch too much at once.) Note that the valid Range for this parameter is shown (relative to our input analysis file): 0.62 to 16.



Double the length of the sound (same pitch!)

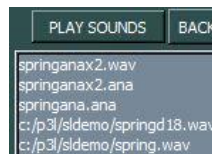
5.10 PLAY and SAVE AS as before, naming it *springanax2*, the 'x2' reminding us that this sound is the spring time-stretched x 2 (doubled in length).

5.11 'To Wkspce: New Files' to leave the Timestretch dialogue, and 'Return to Wkspce Mode' to place the focus in the WORKSPACE. The new time-stretched sound is shown. It is still an analysis file, but will play thanks to Richard Dobson's special play routine for CDP. Select it and click on the 'Play Sounds' button and play the sound in the dialogue that opens. The other sounds listed can also be selected and played in this dialogue, e.g. to compare the stretched sound with the original source sound, etc.



Play the stretched sound

5.12 A final step is to convert the stretched sound as an analysis file back to being a .wav soundfile. As before – you'll be getting the hang of this now – click on ENTER CHOSEN FILES MODE, remove the analysis file in the left panel by clicking on it, then on the time-stretched one in the Workspace panel to make it available for processing: it pops up in the Left Panel. Now Click on PROCESS, then PVOC and *Sound Loom* knows that the next step is to Resynthesise it, so this dialogue appears, there are no parameters to set, so just click on 'Goto Run', then 'RUN', the SAVE AS and the just 'SAVE' in the ensuing dialogue because there is no need to change the name. The resynthesised soundfile will appear in the WORKSPACE with a .wav extension. (Go back to it, as before, with 'To Wkspce: New Files' to leave the resynthesis process dialogue, then RETURN TO WKSPACE MODE.)



Stretched sound wav file is listed

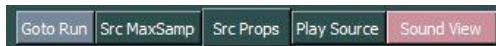
5.13 Back up the file as before.

6. Creating a Breakpoint File

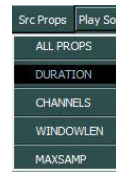
The CDP sound transformation programs make use of a large number of different types of text file with which the user can provide detailed sound design parameter values. The most common of these are the so-called 'breakpoint' files. These give the program a series of times and a parameter value for each of these times. Thus their format is *time value* or *time value value* if there are two parameters. Other software may refer to this type of information as 'automation'.

It is very straightforward to load or create a breakpoint (or other text) file in *Sound Loom*. The Time-Domain transposition carried out above can be done again, this time creating and using a breakpoint file. Again use the CHOSEN FILES mechanism to select *spring.wav* and go directly to Step 4.8 above which selects the SPEED: ... > pitch > tape transpose by semitones. This opens the transposition function (MODIFY SPEED in the Reference Manual) with *spring.wav* ready for processing.

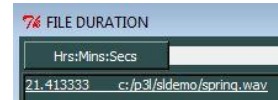
When creating a breakpoint file, it is important to know the duration of the sound to be processed. If not already known, click on 'SrcProps' in the horizontal panel on the left, then on the 'Duration' property. This provides displays the length of the soundfile, in this case 6.5 seconds.



Bar showing SrcProps

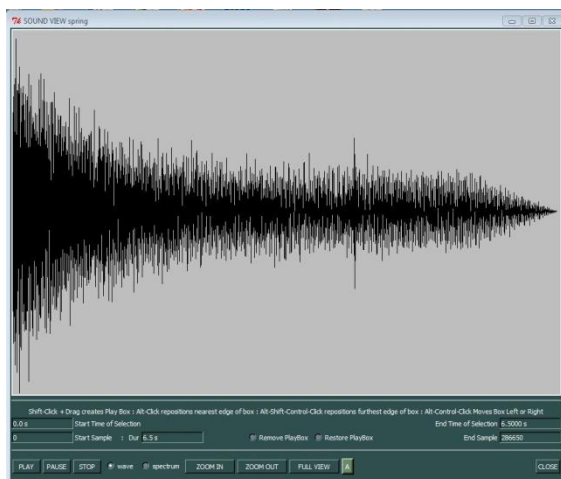


Duration

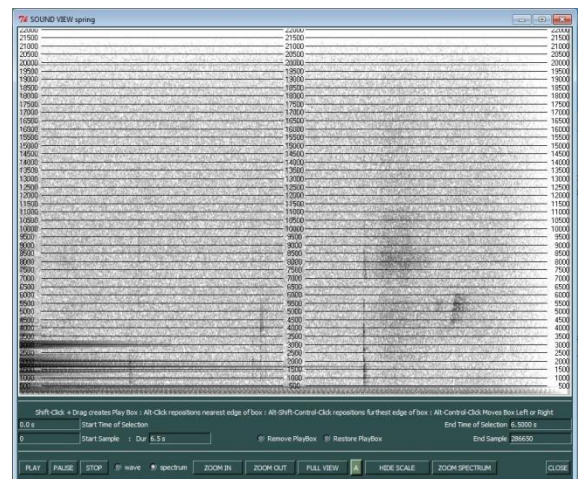


Duration display

Keep this duration in mind and plan out how the transposition might move during this time. It can be even more helpful to see at what times significant signal appears in the sound. The 'Sound View' button will display this. The Time Domain view (*time & amplitude*) is on the left, the Spectral Domain view (*frequency & amplitude*) is on the right, with the frequency grid enabled.



Time Domain sound view



Spectral Domain sound view with frequency grid

(The Spectral Domain view can be especially helpful when setting frequency parameters for filtering.)

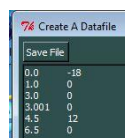
Here is a transposition plan written out as a breakpoint file, with comments to explain what it is doing.

```
time    transposition in semitones
0.0     0.0    ;start at original pitch: no transposition
1.0     12     ;moving upwards an 8ve starting at time 6.0
3.0     12     ;stay at one 8ve above the original pitch for 6 seconds
3.001   12     ;go downwards at time 18.001 (.001 to avoid two different values at the same time)
4.5.0   0.0    ;back at original pitch after 3 seconds
6.5     -18    ;gliss downwards 1½ octaves over the next 8 seconds to just about the end of the sound
```

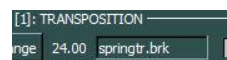
The 'Make File' button on the Transposition function dialogue opens a window in which the above breakpoint file can be typed in. This file becomes the input to the transposition function rather than a single value.



Make brkpt file



entering data



file shown as input to the function

Run the function with 'Goto Run' and then 'RUN'. 'Play' and 'Save' the output as before.

7. Some observations and tips

Tip: For an advanced composition project, it can be wise to store soundfiles of different types, or for different parts of the piece, in different directories; otherwise, it becomes difficult to remember what and where they all are. E.g., sources, types of processing, mixes. They can be moved from the current working directory to these other directories later, on the computer.

Tip: The files listed in the 'Chosen Files' panel can be cleared by clicking on them. It is assumed that a file is listed there because it is selected for processing. Do not click on it to highlight it before processing: it will just go away. Go directly to *PROCESS*.

Tip: To select a source directory it is also possible just to enter its name *with full path* in the space provided. Activate the cursor in this space by clicking in it. To see the contents of the directory, click on the LIST DIRECTORY button.

To create 'shortcuts' on the Workspace to the files you want to use, highlight the files you want (by clicking on them with the mouse). Then press GRAB. The files will appear on the Workspace listing, with their full pathname. (As they are being listed, they are also being examined and their properties stored for later reference: properties such as duration, number of channels, sample rate, etc.)

8. Information and Reference

After this point, you are up and running with *Sound Loom*. Please consult the Reference Manual *sndloom.htm* for more detailed information. As a quick introductory overview, the following two sections summarise a basic sequence of operations to process a sound, first in the time domain (a sound file input), and then in the spectral domain (an analysis file input, unless the process is to analyse a soundfile). The text below assumes that you already have 'chosen files' ready for processing.

Remember that you can also have the full CDP Reference documentation available by loading *index.html* into your Browser, either before or after entering *Sound Loom*. At the moment, however, this documentation cannot be accessed from within *Sound Loom*. That is why it is handy to create a shortcut to *index.html* on the Desktop. Consulting the Reference documentation will often be useful in order to understand the meaning and purpose of parameters, especially in programs that have many parameters. When not in use, just minimise the window to keep the screen clear.

You can also access information on the CDP processes directly from *Sound Loom*.

1. On the **Process** page, the Info button gives access to process information. If the toggle is set to 'Menu' and the Info button is pressed, the menu buttons will turn blue. When you click on one of these, it will list all the processes accessible from that menu.
2. If the toggle is set to 'Process', clicking on a menu button will post the menu on the left of the screen. Choosing an item from the menu will give a description of the CDP process. To reset the Process page in order to use a process, click on the button now labelled 'Action', and the Process page will return to its normal operational mode.
3. On the **Parameters** page, the 'Information' button gives details of the parameters required for the process you are running.

9. A few final observations:

On the **Run** page, once a process has been run it will either return immediately to the **Parameters** page or, if there is a message displayed, wait for you to press OK. There is also an 'About' button on the page. You can press this *before* running a process, e.g., if you change your mind and decide not to run this process. However, if you press this button *during* or *after* a process run, no output will be produced. Furthermore, if you press 'About' *during* a process, it will terminate the process, but you will probably need to 'kill' it in the operating system (see the message that appears on the screen) before you can exit the **Run** page. If a process crashes, always use the 'Abort' button to exit the Run page.

All the soundfiles made during the working session can be found physically on the hard disk in /cdpr6/_cdp (not in the named directory). You can move them to your own directory or any other directory with STORE FILES in the WORKSPACE menu.

You can delete/move soundfiles after Terminating *Sound Loom*, which is OK, but upon launching *Sound Loom* again, it will query where these files have gone. So it's best to delete *or* move from within the *Sound Loom*. These are on the SELECTED FILES menu.

There are many other very powerful facilities on the *Sound Loom*. Of special note are the **Music Calculator** for a variety of calculations and conversions related to musical data, the **Table Editor** for a comprehensive set of facilities for working with columns of numbers: i.e., breakpoint and other types of data files, and the very powerful working environment of **QikEdit**. The above pages have also mentioned **creating Instruments** and **Bulk Processing**. When you start to find your feet transforming sounds with *Sound Loom* and the CDP programs, you will find that the **Music Testbed** offers a range of high level musical functions. If you are into MSDOS-based **Batch Files**, there are facilities for running these (on the Command Line) from within the *Sound Loom*. **Soundfile** and **Sonogram** display, graphic **Breakpoint File** editing, **Mixing**, a **Notebook** for documenting your work as you go along, and numerous other facilities related to file and project management.

Good composing!

APPENDIX - INSTALLING *Sound Loom*

1. Setup: directory structure & files

Check the setup of your Directory Structure: this should be in place automatically when you unpack the Download zip or mkpkg.zip The *Sound Loom* application (exe or app) is downloaded separately and placed in /cdpr7/_cdp, and all the other CDP executable programs are placed in /cdpr7/_cdp/_cdprogs. Any updates should be placed in these same directories: /_cdp for *Sound Loom* and /_cdp/_cdprogs for the executable programs. The documentation is placed in /cdpr7/docs/html (reference documents) and /cdpr7/docs/htmltuts (tutorial documents). The index to all the documentation is *index.html* which is in /cdpr7/docs.

The following provides a handy reference regarding where everything should be for your system to work properly. Note that the required directory structure for *Sound Loom* is /_cdp. All files made while using *Sound Loom* initially go here automatically. It is the actual working directory during a session. It also contains all the other required system subdirectories for *Sound Loom*. NB: Once you have put the CDP executables into /_cdprogs, you should not access or alter the files in these system subdirectories.

/cdp	<i>Sound Loom</i> top level. This is inside the CDP top level, currently usually /cdpr7. Note that soundfiles created when using <i>Sound Loom</i> automatically go here. They are moved to the current working directory by a backup operation.
_cdpatch	will store your Patches (put the Texture Pack Patches here if you want to use them)
_cdpenv	stores the .cdp files containing design information for the Sound Loom, as well as the path to the executables ('execloc.cdp')
_cdpins	stores your instrument data
_cdprogs	contains all the CDP and <i>Sound Loom</i> executables
_userenv	stores details of your working environment
_userlog	will store logs of what you do in each session. Your history files will also go here.
Soundloom	This is the app or exe file that launches <i>Sound Loom</i> when you double-click on it.

The CDP software should now handle spaces in folder or file names, such as for the CDP top level or for current working directories that you might create. However, it is always possible that some older part of the software may not be geared up to handle them. Avoiding spaces is the safest thing to do. Soundfile names should not start with numerals.

The path to the executable programs is set in *Sound Loom* automatically. If the CDP top level directory name is changed, this path could be broken. This is easily fixed by editing the file **cdp/_userenv/execloc.cdp**, which is a normal text file. To run the CDP programs from a command interpreter (MSDOS or the Terminal), the path to them needs to be set on the system: on PC systems path is an 'environment variable'. There is detailed information about

this in the tutorial document *Release7-InstallationNotes-PC.pdf* (Addendum: 'Setting Environment Variables & Path \ Command Line Use'. ON MAC, running the CDP-Release-71.mkpg should install the path as well. In case this needs to be changed, see the last section of *Release7-InstallationNotes-MAC.txt*: "Note for advanced users and sysadmins'. Also see *Manual configuration of the CDP system from the command line (Terminal)*.

Note that running a process from the command line can be a useful way to test whether a problem is in the Graphic interface or in the underlying CDP executable. The fact that the CDP programs will run from the command line is an unusual feature. It makes possible the direct creation of multi-process 'batch' files (user-customised process chain templates) as well as for writing scripts for algorithmic composition, e.g., in *Python*, *TCL/TK*, or *Tabula Vigilans*.

The manual for *Sound Loom* is *Sndloom.htm*, which is found in the /HTML folder. It can be accessed from the main CDP documentation index, *index.html*. You are recommended to make a Shortcut to this file on the Desktop. Trevor Wishart's *A User's Guide to the Sound Loom and CDP Sound Transformation Software* is the most complete reference document for this GUI. The present document *slguide-basic.docx/pdf* provides an introduction to *Sound Loom* for a new user. There is also a more advanced guide for *Sound Loom*: *slguide-advanced.docx/pdf*.

You may store (backup) the files you are working on anywhere on your system. The *Sound Loom* accesses your files (via 'shortcuts') through the **Workspace**. You can specify a directory and list its contents etc. from within *Sound Loom*, and then **Store** your new sounds in a specified directory if you don't want to leave them where they are. This is a matter of file management, which will differ from project to project, but is recommended practice.