

# KBD-INFINITY

Power tools for digital keyboards

## Sound Management Instruction Manual

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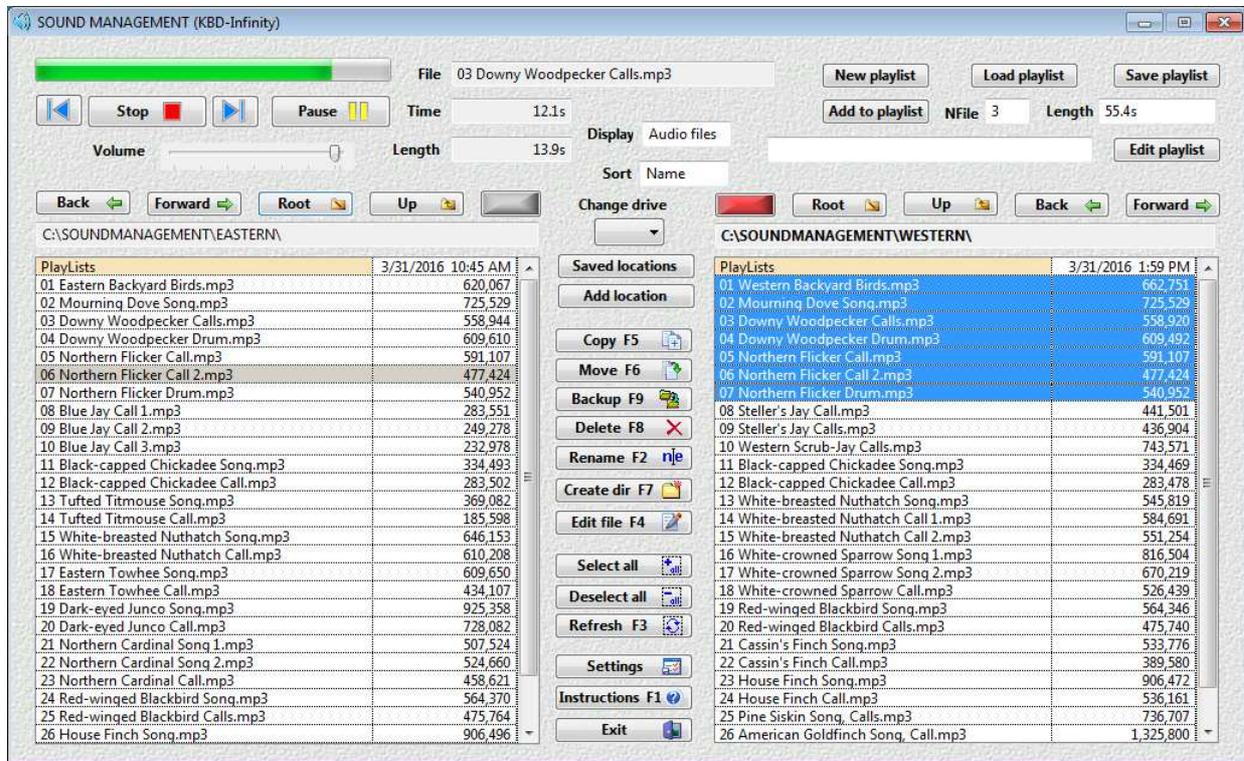


Figure 1: Sound Management, main screen.

## 1 Introduction to Sound Management

**Sound Management** is an essential utility if you work with audio files (MP3, WAV,...). Here are a few of the things you can do with the program:

- Point-and-click to play one or a group of audio files
- Quickly find lost sound files on your hard disk or USB drive
- Organize audio file collections.
- Preview a file by skipping to different positions.
- Point-and-click to create advanced playlists.
- Find and adjust the total duration of file sets and playlists
- Make preview playlists to play sound file excerpts.
- Backup sound file sets to USB drives, updating any changed files
- Automatically run playlists in sequential or random order.

As a quick introduction, run the program to open the window of Fig. 1. Controls to display and to organize files are grouped in the lower section of the screen. The first step is to navigate to a folder (directory) where audio files are stored. You can use either the left or right file window. The window shows a list of files in the current directory and subfolders (tan highlighting). To enter a subfolder, move the mouse cursor over the entry and double-click. To return to the parent folder, use the **Up** button above the window. If the files are stored on the primary hard disk, click the **Root** button to go to `C:\` and then move down the appropriate folder tree. If you allow Windows to organize your data, a typical starting point may be

```
C:\Users\[User name]\Music
```

If the files are on a USB drive, use the **Change drive** control in the center and then navigate to the desired folder.

To listen to a file, select it by left-clicking with the mouse and then click the **Start/Stop** button. (Alternatively, double-click on the file.) **Sound Management** sends audio information to the default Windows output device. The text fields to the right of the player controls show the current time within the file and the total duration. The progress bar at the top shows the relative play position. To move to a different position in the file, move the mouse cursor into the progress bar and left-click at the desired time.

You can select multiple files to play. In this case, **Sound Management** proceeds through the entire set in sequence<sup>1</sup>. When multiple files are selected, the **Next** and **Previous** buttons adjacent to the **Start/Stop** button may be active. Use them to skip to a different file. To find the total play time of a set of selected files, right click anywhere in the window to display the popup menu. Then pick the command **Duration of selected files**.

If this preview looks interesting, read on. The remainder of this chapter summarizes the organization and basic functions of **Sound Management**. Following chapters give detailed reference information on the program function groups.

Figure 2 shows the division of the **Sound Management** window into three control groups:

- **Group A:** Play audio files (either a selection in a file manager window or a playlist).
- **Group B:** Create and edit playlists. Gather audio files from the file manager windows and save them in a playlist file. In addition to the file locations, a playlist may contain advanced information such as volume equalization. You can interactively edit the order and parameters of playlist entries within the program.<sup>2</sup>
- **Group C:** Find and organize audio files. **Sound Management** features a powerful two-window file manager with special capabilities for audio files.

We'll briefly discuss group functions in this chapter. Following chapters give detailed information on each of the groups.

The play controls have the standard functions found on most audio players with some special features. Use the **Start** button to initiate playback of a single selected file, a group of selected files or a playlist. Selections take precedence – use the **Deselect all** button to clear selections. The **Start** button morphs to a **Stop** button when files are playing. Click the **Pause** button to suspend playback. In this case, the button morphs to a **Resume** button. For a multiple-file

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<sup>1</sup>Note that playlists offer a much higher degree of control

<sup>2</sup>Playlist controls are deactivated in the demo version.

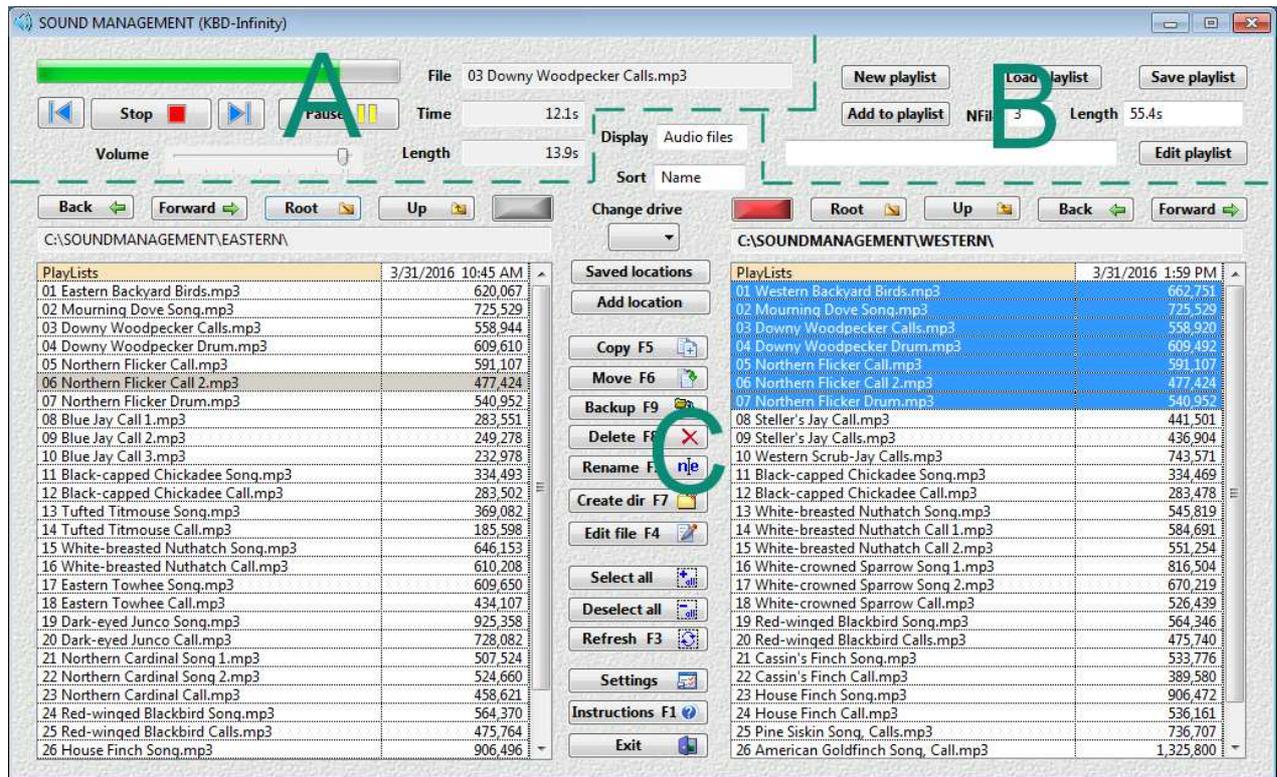


Figure 2: **Sound Management** control groups. A) Play audio files. B) Create and edit playlists. C) Find and organize audio files.

selection, **Sound Management** starts at the beginning of the first file and proceeds completely through each entry following the current sort order. Playlists provide more options. When there are multiple files in a selection or playlist, you can use the **Next** and **Previous** buttons alongside the **Start/Stop** button to skip between files. As each file is loaded, **Sound Management** shows the current file name and duration in the text fields to the right of the play controls.

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## 2 File Organizer

The versatile two-window file-management system of **Sound Management** has special features for organizing audio files. The clear and logical layout of the file manager makes it quick to learn and easy to use. For help, press the **F1** key to open this manual in your default PDF viewer.

### 2.1 General features

Figures 1 and 2 show the program layout. File commands are grouped at the bottom. The left and right windows give listings of folders (directories) and files at chosen locations on a hard disk or USB drive. The controls above the windows are used for navigation between folders. One window is active at any time. The red active-button shows the window that currently has the focus. Some of the controls (**Delete**, **Rename**, **Create dir**, **Edit file**) act on selected files in the active window. The other controls (**Copy**, **Move**, **Backup**) transfer files from the active window to the other. The window focus changes if you click on the opposite window or on any of the controls on the other side.

Selection of files in the windows follows the standard Window conventions. Left-click an entry to select a single file or directory. Hold down the control key to select multiple entries. To select a block of files or directories, select one entry at the top (or bottom) and select another entry at the bottom (or top) while holding the shift key.

### 2.2 Navigation

Directory names in a window are shaded. To move into a directory, double-click its name. Use the **Up** button to move up one level in the directory tree. The **Root** button takes you to the root of the current drive. Use the **Change drive** menu to change the active window to a different drive on the computer. Sometimes it's useful to set both windows to the same location (for example, to move files into a new child directory). To set the right window to the same location as the left window, right-click the right active-button.

As you move between directories, **Sound Management** saves a list of previous locations. Use the **Back** button to move to the previous directory. When you move back, the program saves a list of past locations in a forward stack. In this case, use the **Forward** button to return to a directory.

**Sound Management** saves its current state when you exit. Information includes the current directories of the left and right windows, tools and saved locations. The settings are restored the next time you run the program.

## 2.3 Operations

The file-operation buttons located between the windows control the program's core functions:

- **Copy:** copy the selected directories and files of the active window to the directory of the other window. The copy function may also be initiated with the **F5** key.
- **Move:** move the selected directories and files of the active window to the directory of the other window. In this case, the directories or files are copied to the destination directory, checked for validity and then deleted in the source directory. (**F6** key)
- **Backup:** this command is useful for backing up a project or synchronizing audio files if you work on multiple computers. Its primary task is copying project directories to and from a master copy on a portable device such as a USB stick. If the project directory does not exist in the destination, all source files and subdirectories are copied. Otherwise, only new or modified directories and files are copied. Source files replace existing destination files only if they have a more recent modification date/time. In typical operation, you would use the **Backup** command with the master USB stick as the source when you start work on a computer to ensure that all files reflect the latest version. At the end of the session, use **Backup** with the USB stick as the destination to archive and to synchronize your work. If the setting **Make backup log** is active (see Sect. 2.5), **Sound Management** prompts you to save a record of the backup as a file. The file contains a list of directories and files created on the destination and also the files that were replaced. (**F9** key)
- **Delete:** delete the selected directories and files of the active window. If the **Confirm delete** condition is active (see Sect. 2.5), **Sound Management** prompts to delete the collection of files and directories. (**F8** key)
- **Create dir:** create a new directory within the directory of the active window. Type a name in the text field of the dialog and press **OK** or **Cancel**. Alternatively, press **Enter** in the text field to create the directory or **Esc** to cancel the operation. (**F7** key)
- **Edit file:** open a single file selected in the active window with an editor. A text, hex or audio editor must be defined in the **Settings** dialog to use this feature. (**F4** key)
- **Select all:** select all directories and files in the active window.
- **Deselect all:** cancel all selections in the active window.
- **Refresh:** use this command to update the display if you change files with an external program. (**F3** key)

When you double click on a file, the resulting action depends on the type of file:

- If the file is an audio file, the program plays it. Note that recognized audio file types are defined in the **Settings** dialog.
- If the selection is not an audio file, **Sound Management** launches external programs (`FileName.exe`) or batch files (`FileName.bat`)

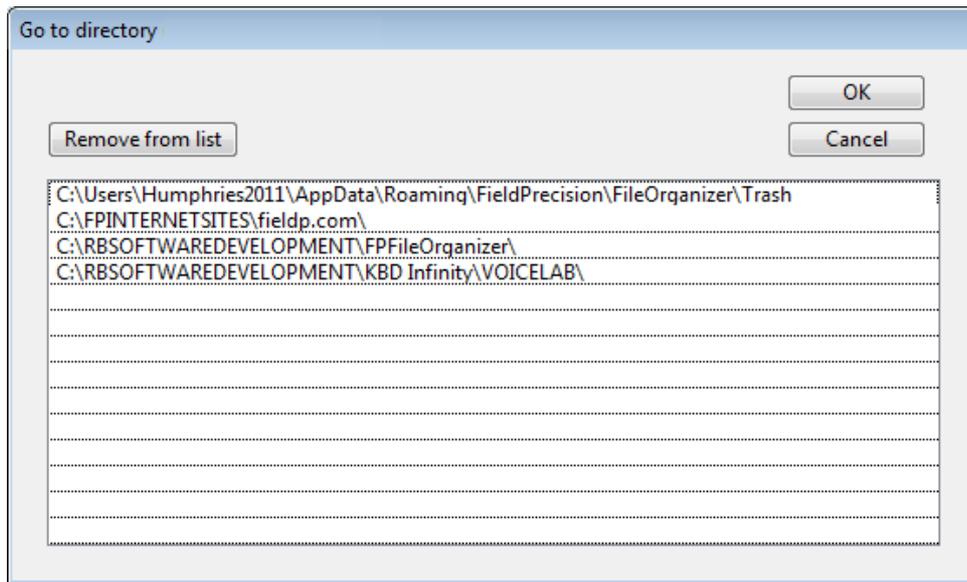


Figure 3: Saved locations dialog.

- The program opens files whose extensions are associated with programs in Windows. For example, a file `FileName.html` would be opened in your default browser.

You can copy the path of the directory locations of the left or right windows to the clipboard. Click on the text field listing the directory above the window and press `Ctrl-C`. You can also copy the names of any group of directories or files in either window to the clipboard. Make a selection using the standard rules and then press `Ctrl-C`.

**Sound Management** shows the progress of extended copy, move or delete operations. During this period, other program commands are deactivated. Click **Cancel** to abort the operation.

## 2.4 Saved locations

You may often return to a specific folder when working on a project. In this case, a saved location can eliminate the effort of stepping through the directory tree each time. If you want to return to the folder of the active window in the future, click the **Add location** button to add it to the list of saved locations.

Click the **Saved locations** button to show the dialog of Fig. 3. The window shows a listing of saved folders. Double-click an entry to open the folder in the active window. Alternatively, select a location and click **OK**. To delete a location, select it and click the **Remove from list** button. Click **Cancel** if you decide not to change the location of the active window. You can drag entries up and down with the mouse to organize the list. Note that the location list is saved when you exit **Sound Management** and restored next time you run the program.

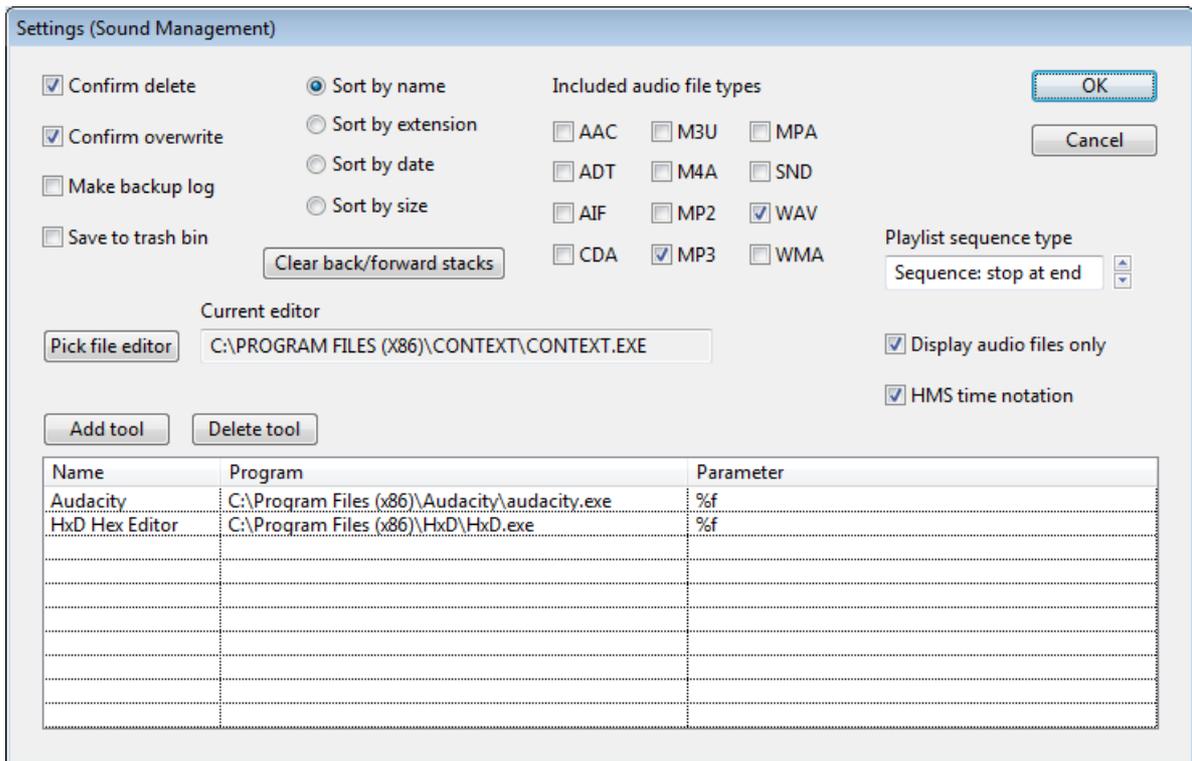


Figure 4: Program settings dialog.

## 2.5 Program settings

Click the **Settings** button to open the dialog of Fig. 4. Use the **Pick file editor** button to specify an external program called by the **Edit file** button. Navigate through **Program files** or **Program files (X86)** folders to find your editor of choice. You could choose a text editor or an audio editor like **Audacity**.

The **Confirm delete** checkbox controls whether the program prompts to confirm delete operations. Use caution if you deactivate this feature. When the **Confirm overwrite** checkbox is active, the program prompts if you attempt to copy or move a file or directory into a directory where an item has the same name. When the **Save to trash** checkbox is checked, files are copied to the Windows recycle directory before being deleted. Use the **Clear back/forward stacks** to reset operation of the **Back** and **Forward** buttons.

The sort options control how directory and file names are displayed in the windows and what additional information is available.

- **Sort-by-name.** Folders are listed in alphabetic order with their last-modification date, and files are organized alphabetically with their byte size.
- **Sort-by-extension.** The same as the previous option, except that files are grouped alphabetically by their extension (suffix) and then by name.
- **Sort-by-date.** Both directories and files are ordered first by last-modification date and then alphabetically by name showing the last-modification date.
- **Sort-by-size.** Directories are listed in alphabetic order with their last-modification date, and files are organized in the order of their byte size.

In all cases, directories are listed first. You can change the display method quickly with the following shortcuts: **Ctrl-N** (sort by name), **Ctrl-D** (sort by date), **Ctrl-E** (sort by extension) or **Ctrl-S** (sort by size). The sort options may also be changed in the advanced-features popup menu. The current sort method is shown in the **Sort** text field.

The set of checkboxes under **Included audio file types** determine which audio formats are recognized by **Sound Management**. The defaults are **MP3** and **WAV**. Most files types are supported by default in Windows. The exception is files of type **OGG**. It's necessary to install a codec, a relatively easy operation. Go to the **Xiph** site and download the **DirectShow** filters:

<http://xiph.org/dshow/>

Simply run the executable and everything will be set up correctly.

The control **Playlist sequence type** determines the order of items in a playlist (Sect. 4):

- **Sequence: stop at end.** Run through the items from beginning to end in the order in which they appear in the list. Stop after the last item.
- **Sequence: repeat at end.** Go through the list in order and then start from the top after the last item.
- **Random.** Play items in random order. Continue until playback is stopped manually.

Use the **Up-Dn** arrows to switch the choice.

The checkbox **Display audio files only** determines whether all files or only audio files are displayed in the file manager windows. Note that the display of audio files is influenced by the **Included audio file types** checkboxes. Finally, the **HMS time notation** checkbox determines whether the total and elapsed play times are shown in hour-minute-second format or as the total number of seconds.

## 2.6 Advanced functions

Advanced features of **Sound Management** are collected in a popup menu. To bring up the menu, right-click anywhere in the program window. Besides, the sort options, the menu includes the following capabilities:

- **Activate program.** Open all features of **Sound Management** when you purchase a license.
- **Instruction manual.** Display this document in your default PDF viewer.
- **Toggle display audio only.** Display all files in the file manager windows or just the audio files selected in the Settings dialog.
- **Duration of selected files.** Select one file or multiple files. **Sound Manager** displays the total duration of the set in the current format (HMS or seconds).
- **Open terminal window.** Run `cmd.exe`, opening the program in the currently-active window.

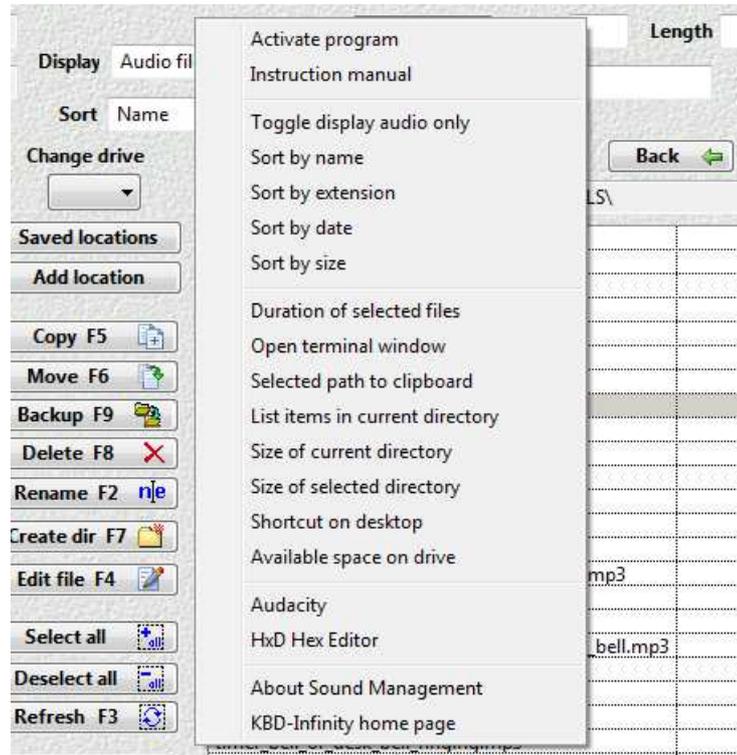


Figure 5: Popup menu options.

- **Selected path to clipboard.** Use this command after selecting a file or directory (left-click). The full path to the item is copied to the Windows clipboard. This function is useful to fill in programs and parameters for user-defined tools (see below).
- **List items in current directory.** Collect information on the files and directories in the currently-active directory (names, lengths, modification date, creation date) and save it to a specified text file.
- **Size of current directory.** Show the number of directories and files in the currently-active directory and the cumulative byte size of the files.
- **Size of selected directory.** List the total number of items (files and directories) and cumulative file bytes in a selected directory. All subdirectories are included. To use the feature, select a directory, right-click to display the popup menu and click on the command.
- **Shortcut on desktop.** Add a shortcut to the selected program or document on the Windows desktop.
- **Available space on drive.** Shows the following information for the drive of the window that currently has the focus: total size on the drive, free bytes available to the current user and total free bytes.

You can also define custom commands that appear in the popup menu. They will launch external programs with specified pass parameters. Commands are created in the list box at the bottom of the **Settings** dialog (Fig. 4). Click the **Add tool** button to add a new command, then type in replacements for the default text entries. The first column is the name that will appear in the popup menu. The second column is the full path of the executable that will be launched. The third column contains parameters to pass to the program at startup. Leave this column blank if you simply want to start an external program. The examples in Fig. 4 show how to launch **Audacity** to edit audio and a hex editor to modify header information in MP3 files. For example, to work on a file with **Audacity**, highlight it, right-click to display the popup menu and click the desired tool (Fig. 5). The symbols **%f** and **%d** may be used in a pass parameter to represent the full path of the currently-selected file or directory.

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### 3 Playing files



Figure 6: Controls for playing files.

The controls to play audio files are located in the top left section of the **Sound Manager interface** (Fig. 2). To listen to an individual file, navigate to its folder in either the left or right window and double-click the file name. The following events occur:

- The audio file signal is directed to the current Windows default audio output device (typically, the speakers)<sup>3</sup>.
- The **Start** button changes to a **Stop** button.
- The **Pause** button becomes active.
- The progress bar shows the current play position in the file.
- The file name is displayed along with its total duration.
- The elapsed time is displayed in the currently selected format.

An alternative way to play a single file is to select it and then to click the **Start** button.

Use the **Pause** button to suspend play. The button changes to a **Resume** button. Click it to restart at the same place. Change the playback volume with the **Volume** slider. To start a file in the middle, highlight it and then left-click at the desired position in the progress bar at the top. You can also repeat sections of the file or skip ahead by clicking in the progress bar.

You can play a set of files by selecting multiple entries in one of the file manager windows and then clicking the **Start** button. The files will play in the order that they are listed in the window. When multiple files are selected, the skip ahead or back buttons adjacent to the **Start** button become active. The **Skip ahead** button stops the current file and starts the next one in the list. Note that you can also skip to different positions in the current file by left-clicking in the progress bar. As an example, suppose you want to preview all files in a folder quickly. Navigate to the folder, click the **Select all** button and then use the **Skip ahead** button to cycle through the files.

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<sup>3</sup>To redirect the audio signal, change the default device in the **Sound** tab of the **Windows Control Panel**.

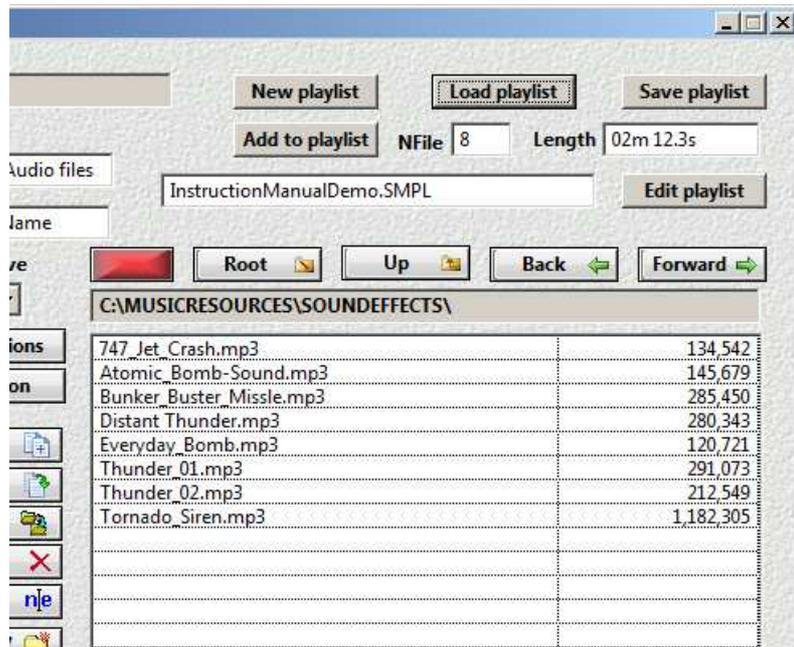


Figure 7: **Sound Management** playlist control section.

## 4 Playlists

A playlist is a set of audio files that play sequentially – useful (for example) if you want background music for a restaurant or nail salon. There are many available utility programs that handle playlists, but **Sound Management** has some unique features:

- It's easy to create lists by adding entries directly from the file manager windows.
- You can balance the volume levels in file sets with a large dynamical variation.
- Play excerpts of entries by setting start and stop times.
- Use an interactive editor to set play parameters and the order of entries. The editor keeps a running record of the total list duration.
- Optionally, create and edit playlists with a text editor.

Playlist controls are grouped in the upper-right section of the program window (Fig. 7).

Building a playlist is easy. Simply navigate around a hard disk or USB drive, select the files you want to add, and click the **Add to playlist** button. As shown in Fig. 7, **Sound Management** shows a running total of the number of files in the list and the total duration of the list. If you have been working on a previous list and want to start afresh, save it and click the **New playlist** button to clear the memory. You need not worry about details when you are collecting files – items can be re-ordered or removed later. Here are two points to remember:

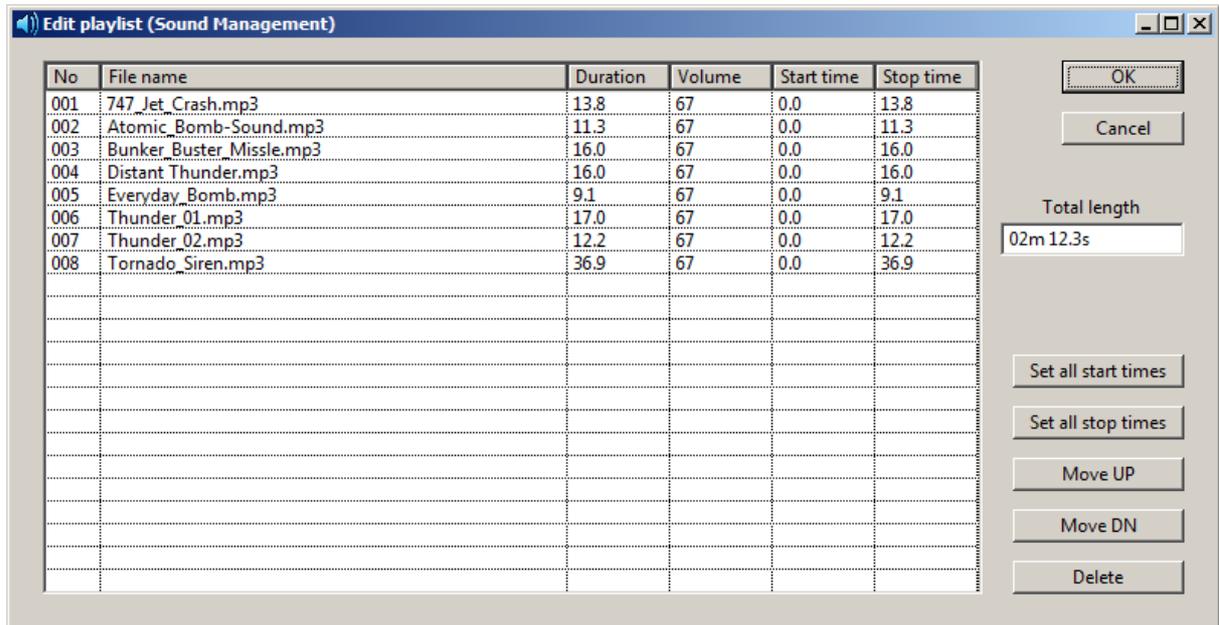


Figure 8: Edit playlist dialog.

- A playlist consists of a set of references to the absolute paths of files on the current computer. It does not contain the files themselves. Therefore, if you move the files or remove a drive, the playlist may not work.
- When you add a file to the list, the start time is set to the beginning of the file by default and the stop time to the end. The volume level is set to the current value of the Volume slider on the left-hand side of the screen. These values may be modified later.

When you are finished collecting files, you can fine-tune the list by clicking the **Edit playlist** button. **Sound Management** displays the dialog of Fig. 8. For each file, the listbox shows the duration, the relative volume, the start time and the stop time. Time values are listed in units of seconds. The text field **Total length** gives the duration of the file set in the current time notation. You can perform several operations in the dialog.

### Change the order of entries

To move a single file, select it and click the **Move UP** or **Move DN** buttons as many times as necessary. Alternatively, select the file and hold down the left mouse button as you drag it up and down. To move a block of files, make a multiple selection by selecting one file (top or bottom) and then holding down the shift key while selecting another (bottom or top). All intervening files are selected. Move the mouse into the block, hold down the left button and drag the group.

### Remove one or more files

Select one file or a group of files. Click the **Delete** button or press your keyboard's **Delete** key. Note that the quantity in the **Total length** field changes to reflect the modified set.

### Change the parameters of an entry

The volume, start time and stop time columns may be edited. Left-click to select a cell and type in a new value. For the relative volume, enter an integer value in the range 0-100. The start time is a real number between 0.0 and the stop time. The stop time is a real number between the start time and the duration. **Sound Management** fixes incorrect values. Note that the playlist duration in the **Total length** field reflects the current settings of the start and stop times. With this feature, you can set an exact play length for the list.

The buttons **Set all start times** and **Set all stop times** are useful if you want to play a set of excerpts of fixed length. For example, suppose you want to play the first 30 seconds of each file. Set the stop time of the first entry to 30.0 and then click **Set all stop times**. All the entries in the stop time column are set to 30.0.

When you are finished editing, click the OK button. **Sound Management** copies the current state of the listbox to memory and closes the dialog. To abandon any changes, click the **Cancel** button.

Back in the main window, click the **Save playlist** button to save your work. The command makes a file with suffix **SMPL** (**S**ound **M**anagement **P**lay**L**ist) in text format. You can create or modify playlist files directly with a text editor. Here is an example of the format:

```
* Sound Management playlist file
C:\MUSICRESOURCES\SOUNDEFFECTS\747_Jet_Crash.mp3,13.8,67,0.0,13.8
C:\MUSICRESOURCES\SOUNDEFFECTS\Atomic_Bomb-Sound.mp3,11.3,67,0.0,11.3
C:\MUSICRESOURCES\SOUNDEFFECTS\Bunker_Buster_Missile.mp3,16.0,67,0.0,16.0
C:\MUSICRESOURCES\SOUNDEFFECTS\Distant_Thunder.mp3,16.0,67,0.0,16.0
C:\MUSICRESOURCES\SOUNDEFFECTS\Everyday_Bomb.mp3,9.1,67,0.0,9.1
C:\MUSICRESOURCES\SOUNDEFFECTS\Thunder_01.mp3,17.0,67,0.0,17.0
C:\MUSICRESOURCES\SOUNDEFFECTS\Thunder_02.mp3,12.2,67,0.0,12.2
C:\MUSICRESOURCES\SOUNDEFFECTS\Tornado_Siren.mp3,36.9,67,0.0,36.9
```

The first line must appear exactly as written. The remainder of the file consists of comments and data lines. Comment lines start with an asterisk-space. Each data line contains five quantities delimited by commas: 1) absolute file path (string), the duration (in seconds, real), the relative volume (0-100, integer), the start time (real) and the stop time (real). Don't worry if you want to add a file but don't know the duration (and hence the stop time). Enter any numbers – **Sound Management** adjust values on load. Finally, use the **Load playlist** button to load a saved playlist. The program gives an error report if any of files cannot be loaded (*i.e.*, they have been moved or deleted).