

* # \$ K + **Menu Commands**

The top level menus provided by HarBal Harmonic Balancer include:

File Menu

Edit Menu

Graph Menu

Equalizer Menu

Cursor Menu

Help Menu

K **File Menu**

Open Command

Close Command

Filter Submenu

New Command

Open Command

Save Command

Save As Command

Reference Submenu

Open Command

Close Command

Swap Command

EQ Output Command

Print Command

Print Setup Command

Exit Command

```
* WINDOWS
# IDH_Menu_Commands
$ Menu Commands
K Menu Commands;
+ HarBal:000080
# IDH_File_Menu
K File;
```

K File | Open Command



You use the Open command to select the source file that you wish to Harmonically Balance. The source file formats supported by HarBal include:

- Wave files (.wav)
- AIFF files (.aif)
- NeXT/Sun files (.au)
- Amiga IFF/8SVX files (.iff,.svx)
- Sphere NIST files (.nist)
- Raw PCM Data files (.pcm)
- Paris files (.paf)

The compression formats supported include:

- μ -law
- A-law
- IMA ADPCM
- Microsoft ADPCM

On opening a source file for the first time HarBal will analyse the file contents and save the analysis in an analysis file stored in the same folder as the source file. The analysis file has the same base name as the source file but is given a .anl file extension. The analysis is then displayed in the form of an average power spectrum or spectrum for short.

K File | Close Command

The close command closes the currently opened source file.

K File | Filter | New Command



The Filter | New command allows you to create a new equalization filter. This occurs automatically on opening a new source file. A new equalization filter is created with a flat frequency response.

K File | Filter | Open Command



The Filter | Open command allows you to open and use a previously saved equalization filter.

```
# IDH_File_Open_Command
K File;
# IDH_File_Close_Command
K File;
# IDH_Filter_New_Command
K Filter;
# IDH_Filter_Open_Command
K Filter;
```

K **File | Filter | Save Command**



The Filter | Save command allows you to save the current equalization filter to file. The filter may then be re-loaded at a later time to reproduce a given Harmonic Balance on a source file.

K **File | Filter | Save As Command**

Like the Filter | Save command, the Filter | Save As command allows you to save the current equalisation filter to a specific file.

K **File | Reference | Open Command**



The Reference | Open command allows you to open a given source file or source analysis file for use as a reference. The analysis of the reference source will be overlaid on the analysis plots of current source. However, unlike the source file spectrum, the equalization filter does not alter the reference source spectrum.

K **File | Reference | Close Command**



The Reference | Close command allows you to discard the reference source file. On doing so the reference spectrum will be removed from the spectrum display.

K **File | Reference | Swap Command**



The Reference | Swap command allows you to swap the reference file and equalization filter with the source file and equalization filter. This command is only accessible if the reference file is playable. This feature is particularly useful when performing tonality and loudness balancing between two tracks when you need to make filter adjustments for both the source and the reference.

K **File | EQ Output Command**

The EQ Output command allows you to specify the file name and format of the equalization output file. This file is written to when the record operation is invoked. By default the output file has the same format as the source file and the file name is that of the source file post

```
# IDH_Filter_Save_Command
K Filter;
# IDH_Filter_Save_As_Command
K Filter;
# IDH_Reference_Open_Command
K Reference;
# IDH_Reference_Close_Command
K Reference;
# IDH_Reference_Swap_Command
K Swap;
# IDH_EQ_output_Command
K EQ Output;File;
```

fixed with `_eq`. For example, if the source file is `dog.wav` then the default output file is `dog_eq.wav`.

K **File | Print Command**



The print command allows you to print spectrum results to the default printer. To select the printer to be used, use the Print Setup command.

K **File | Print Setup Command**

The Print Setup command allows you to select the printer to use when printing spectrum results, and also allows you to configure the printer.

K **File | Exit Command**

The exit command allows you to close HarBal Harmonic Balancer.

K **Edit Menu**

Undo Command

Redo Command

K **Edit | Undo Command**



The Undo command allows you undo changes made to the equalization filter. Changes are made using the gain cursor. Each change made is recorded in an Undo stack giving unlimited undo capabilities.

K **Edit | Redo Command**



The Redo command allows you to reinstate undone changes to the equalization filter design.

```
# IDH_Print_Command
K File;Print
# IDH_Print_Setup_Command
K File;Print;
# IDH_Exit_Command
K File;Exit;
# IDH_Edit_Menu
K Edit;
# IDH_Edit_Undo_Command
K Edit;Undo;
# IDH_Edit_Redo_Command
K Edit;Redo;
```

K **Graph Menu**

Zoom all Command

Clipboard copy Command

Auto scale Command

Options Command

K **Graph | Zoom all Command**

The Zoom All command allows you to zoom the spectrum display so that all the spectrum features are visible.

K **Graph | Clipboard copy Command**

The Clipboard Copy command allows you to place an image of the spectrum into the Windows clipboard, which can subsequently be pasted into another Windows application. HarBal places a picture of the display onto the clipboard in two formats: Windows metafile picture and Windows bitmap.

K **Graph | Auto scale Command**

The Auto Scale command allows you to enable/disable auto scaling of the spectrum display. Once you alter the spectrum display by using one of the zoom cursors auto scaling is disabled. Use this command to reinstate the auto-scaling mode.

K **Graph | Options Command**

The Options command allows you to alter the visual appearance of the spectrum display within HarBal. This command opens the Graph Options dialog, which allows you alter the fonts and colours used in the spectrum display.

K **Equalizer Menu**

Stop Command

Play Command

```
# IDH_Graph_Menu
K Graph;
# IDH_Graph_Zoom_all_Command
K Graph;Zoom;
# IDH_Graph_Clipboard_copy_Command
K Graph;Clipboard;
# IDH_Graph_Auto_scale_Command
K Graph;Auto scaling;
# IDH_Graph_Options_Command
K Graph;Properties;
# IDH_Equalizer_Menu
K Equalizer;
```

Record Command

EQ In Command

Reference In Command

K Equalizer | Stop Command



The Stop command allows you to stop the playback of the source and/or reference file.

K Equalizer | Play Command



The Play command allows you to play the source file through your PC sound card with or without harmonic balancing. If the EQ In menu is checked (or the EQ toolbar button is depressed) then playback will include the equalization filter. You can toggle the EQ In menu during playback to hear the effect of harmonic balancing on the source material.

If a reference file is loaded and it is a playable file you can toggle playback between the source file and the reference file using the Reference In menu command (or REF In toolbar button). Playback of the reference will include equalization filtering if a filter file was specified when the reference was opened and pressing the EQ In button has no effect upon the reference playback. This feature is particularly useful for normalising songs to have consistent tonality and loudness.

K Equalizer | Record Command



The Record command allows you to write the source file, with equalization filtering applied, to file. The destination file is specified using the EQ Output Command. Note that the record operation will only include the effect of the filter if the EQ In menu is checked.

K Equalizer | EQ In Command



The EQ In command switches the equalization filter in and out of playback and record operations in real time so that you can evaluate the effect of the filter on the source file.

```
# IDH_Stop_Command
K Equalizer;Stop;
# IDH_Play_Command
K Equalizer;Play;
# IDH_Record_Command
K Equalizer;Record;
# IDH_EQ_In_Command
K Equalizer;EQ In;
```

K Equalizer | Reference In Command



The Reference In command switches playback between the source file and the reference file in real time so that you can compare the tonality and loudness of the harmonically balanced source with the reference.

K Cursor Menu

[Select Command](#)

[Zoom In Command](#)

[Zoom Out Command](#)

[Pan Command](#)

[Gain Command](#)

K Cursor | Select Command



The Select command allows you to revoke the current cursor. This cursor mode has no effect on the spectrum display.

K Cursor | Zoom In Command



The Zoom In command allows you to zoom in on a specific feature in the spectrum display. Once selected the cursor icon changes to the zoom in cursor. You may then zoom in on a particular region of the display by clicking and dragging a zoom box so that it encloses the region of interest. Once you release the left hand mouse button the selected region becomes the area of view. During this cursor mode the axis values at the current cursor position are displayed in the message display area of the status bar.

K Cursor | Zoom Out Command



The Zoom Out command allows you to Zoom Out of a specific region in the spectrum display. Once selected the cursor icon changes to the zoom out cursor. You may then zoom out of a particular region of the display by clicking and dragging a zoom box so that it encloses the region with which the graph should collapse to. Once you release the left hand mouse button the selected region is zoomed out such that the previous display bounds

```
# IDH_Reference_In_Command
K Equalizer;Reference In;
# IDH_Cursor_Menu
K Cursor;
# IDH_Select_Command
K Cursor;Select;
# IDH_Zoom_In_Command
K Cursor;Zoom In;
# IDH_Zoom_Out_Command
K Cursor;Zoom Out;
```

collapses to the selected region. During this cursor mode the axis values at the current cursor position are displayed in the message display area of the status bar.

K **Cursor | Pan Command**



The Pan command allows you to pan the spectrum display in any direction. Once selected the cursor icon changes to the pan cursor. You may then pan the display from left to right, or up and down, or a combination of both by clicking and dragging a pan arrow in the direction you wish the plots to be moved. Once you release the left hand mouse button the plots are moved by the desired amount. During this cursor mode the axis values at the current cursor position are displayed in the message display area of the status bar.

K **Cursor | Gain Command**



The Gain command allows you to design a matching equalization filter for the current source file. Once selected the cursor icon changes to the gain cursor. You can then use the gain cursor to alter the shape of the spectrum plot at will.

The gain cursor is, in essence, equivalent to a parametric equalizer. The centre frequency is chosen by moving the cursor to the desired frequency on the spectrum plot and then pressing and holding down the left mouse button. Moving the mouse up and down controls the gain and moving the mouse left and right controls the Q. During the dragging operation a preview of the filtered spectrum result tracks the mouse movement. When you release the left mouse button the filter change is made and the spectrum plots updated.

Note that when using the gain cursor you can switch focus from average to geometric mean and peak spectrum plots by pressing the tab key whilst the left mouse button is down.

K **Help Menu**

[Contents Command](#)

[Topic Search Command](#)

[Using help Command](#)

[About Command](#)

K **Help | Contents Command**

The help contents command opens the help file for HarBal at the contents page.

```
# IDH_Pan_Command
K Cursor;Pan;
# IDH_Gain_Command
K Cursor;Gain;
# IDH_Help_Menu
K Help;
# IDH_Contents_Command
K Help;
```

^K **Help | Topic Search Command**

The topic search command lets you search for help on HarBal using keywords.

^K **Help | Using help Command**

The using help command opens the help on using the help system provided by the Windows operating system.

Help | About Command

The about command opens the About dialog which displays version and copyright information for HarBal and contact details for the purposes of product queries and/or complaints.

```
# IDH_Topic_Search_Command
K Help;Topic;Search;
# IDH_Using_help_Command
K Help;Using Help;
# IDH_About_Command
```