WAVES: ANDREW SCHEPS

SCHEPS 73

USER GUIDE

WAVES

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Chapter 1 – Introduction

1.1 Welcome

Thank you for choosing Waves. In order to get the most out of your Waves processor, please take the time to read through this manual.

In conjunction, we also suggest you become familiar with www.wavesupport.net. There you will find an extensive **Answer Base**, the latest **Tech Specs**, detailed **Installation** guides, new **Software Updates**, and current information on **Authorization** and **Registration**.

By signing up at www.wavesupport.net, you will receive personalized information on your registered products, reminders when updates are available, and information on your authorization status.

1.2 Product Overview

The music of the ‘60s and ‘70s was characterized by a sound that was warm, fat, and rich, with a breathtakingly detailed midrange. The analogue processors of that era, when analyzed today, still amaze even the most brilliant of engineers in their sophisticated designs and the creative solutions used to overcome some of analogue’s least wanted artifacts. Although lacking the pristine specifications of modern Waves plug-ins, they still easily provided recording engineers a sound that is all-but-impossible to achieve today. Using new component modeling technology Waves Audio and producer/mixer Andrew Scheps set out on a mission to bring one of the most desired eq’s in the world to your digital environment.

1.3 About the SCHEPS 73

The Scheps 73 is a three band EQ, with a fixed High Shelf frequency, a Mid Band with 7 cutoff points (including the recently discovered 10Khz bell), a Low Shelf with 4 cutoff points, and an 18db/octave High Pass filter with 4 selected cutoff points. In addition to the eq, the Scheps 73 provides an option to color the sound with harmonic distortion ranging from pleasant warmth up to the heavy drive settings of one of the most popular preamps out there. For complete control, the Scheps 73 offers a comprehensive monitor section to easily scrutinize your processing stages.

1.4 Components

WaveShell technology enables us to split Waves processors into smaller plugins, which we call **components**. Having a choice of components for a particular processor gives you the flexibility to choose the configuration best suited to your material. SCHEPS 73 includes the following components:

- SCHEPS 73 Mono
- SCHEPS 73 Stereo

Chapter 2 – Interface and Controls

2.1 Interface

1. Pre-Amp
2. High Shelf Band
3. Mid Band
4. Low Shelf Band
5. High Pass Band
6. Monitor Section
7. EQ Mode
8. Meter Selector
9. Input Section
10. Output Section
11. Meters
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2.2 Controls

1. Pre-Amp Section

a. Pre-Amp

Two scales have been modeled: Line scale ranges from -20L to +10L and Mic scale from -20M to -80M. Both scales switch in 5dB Increments. The Line scale will get extension of '**L'** and the Mic scale '**M'**
In MS Mode: Left Pre-Amp will control the Mid signal in the Matrix, the Right Pre-Amp will control the Side signal in the Matrix**.**

Please note!! In its default setting the Pre-Amp will not increase gain, just harmonic distortion. The distortion is mild and adds some coloration.

b. Drive

The Drive control turns the Scheps 73 into a distortion generator. This toggles the plug-in to a state that emulates the insertion of a line level signal into the mic preamp for distortion effects.
When Drive is turned on, the Line selections on the Pre-amp are unavailable. When turning on the Drive control, the setting will automatically switch to Mic -20.

Please note!! In Drive state the Pre-Amp will increase gain, and heavy distortion will be heard.

2. High Shelf Section

a. High Gain

A continuous gain control for the High shelf filter.
Range: +/- 16 dB in 0.1 dB increments
Default Setting: 0dB
In MS Mode: The Left High Gain controls the Mid signal in the Matrix. The Right High Gain controls the Side signal in the Matrix**.**

b. High On/Off

Toggles the High Shelf Band On/Off.

3. Mid Band Section

a. Mid Frequency

Toggles between 7 Mid frequencies: 360Hz, 700Hz, 1.6KHz, 3.2KHz, 4.8KHz, 7.2KHz, 10KHz
Default Setting: 1.6Khz.
In MS Mode: The Left Mid Frequency controls the Mid signal in the Matrix. The Right Mid Frequency will control the Side signal in the Matrix**.**

b. Mid Gain

A continuous gain control for the Mid frequency filter.
Range: +/- 18 dB in 0.1 dB increments
Default Setting: 0dB
In MS Mode: The Left Mid Gain controls the Mid signal in the Matrix. The Right Mid Gain controls the Side signal in the Matrix.

c. Mid On/Off

Toggles the Mid Band On/Off.

4. Low Band Section

a. Low Frequency

Toggles between 4 Low frequencies: 35Hz, 60Hz, 110Hz, 220Hz
Default Setting: 110Hz.
In MS Mode: The Left Low Frequency controls the Mid signal in the Matrix. The Right Low Frequency controls the Side signal in the Matrix**.**

b. Low Gain

A continuous gain control for the Mid frequency filter.
Range: +/- 18 dB in 0.1 dB increments
Default Setting: 0dB
In MS Mode: The Left Low Gain controls the Mid signal in the Matrix. The Right Low Gain controls the Side signal in the Matrix**.**

c. Low On/Off

Toggles the Low Band On/Off.

5. High Pass Filter Section

a. High Pass Filter Frequency

Toggles between 4 High Pass Filter frequencies: 50Hz, 80Hz, 160Hz, 300Hz.
Third order filter (-18dB per octave).
Default Setting: 50Hz.
In MS Mode: The Left High Pass Filter controls the Mid signal in the Matrix. The Right High Pass Filter controls the Side signal in the Matrix**.**

b. High Pass Filter On/Off

Toggles the High Pass Band On/Off.
Please Note!! The High Pass Band is the only control to have separate On/Off control for left and right, this is due to the fact that it does not have a 0 position (off).

6. *Monitor Section*

a. **Stereo/Duo Modes** - There are four Monitoring options:

Left: Monitors the Left signal output only.
Mono: Monitors the summed output (-6dB) in mono.
Stereo – Monitors the output in stereo mode.
Right - Monitors the Right signal output only.

b. **MS Mode** - Headers of Left & Right will change to Mid & Side. There are four Monitoring options:

Mid – Monitors the Mid (Sum) signal output.
Mono – Monitors the MS output (-6dB) in mono mode.
Stereo – Monitors the MS output in stereo mode.
Sides - Monitors the Sides (Difference) signal output.
Default Setting: Stereo

7. EQ Mode - *Stereo Component Only*

There are three EQ Modes:
Stereo: The EQ and Faders are in link mode. When setting a control on one side the other side will change to the same value. Any difference in the settings between sides (That was created using the DUO, and MS modes) will be preserved when moving back to Stereo mode.
Duo: The EQ and Faders can be set independently.
MS Mode: This mode will apply an MS Matrix to the input of the plug-in, allowing the user to separately EQ and level the **Mid** (Sum) and **Sides** (Difference) signals. In this Mode, an **M** (for Mid) and **S** (for Sides) letters will be added at the header of the EQs. **M** at top of Left side and **S** at top of Right side.
Default Setting: Stereo

8. VU Meter

The Meter section provides the following metering modes:

- ***Input Metering*** - Shows the input level of the plug-in. The meter displays the post Input Fader Level prior to any other processing in the plug-in.
- ***Output Metering***- Shows the output level of the plug-in. The meter displays the post processing post Output Fader Level in the plug-in.

A switch control to move between the modes is located in the Meter section

a. **VU Meter Headroom calibration control.**
The Meter headroom calibration control defaults to 18dB headroom and can be adjusted using the little screw at the bottom right side of each meter
the meter to provide settings of 12 to 24dB where XdBfs = 0VU.

b. **Clip Indicator**
Indicates peak clipping, and is located at the top right of the meter. It is almost invisible to the eye until it is on.

9. Input

This Continuous Fader will provide input level control to the EQ.
Range: +12 to -24dB
Initial Value: 0dB
Stereo Component: There will be two Input Faders.

a. **Input Link - Stereo Component Only**

This control will link the 2 Input Faders. It will always maintain any relative offset between the faders and stop moving both once either fader reaches the end stop.

10. Output Level

This Continuous Fader will provide the option to adjust Gain after Plug-in processing.
Range: +12 to -24dB.
Initial Value: 0dB
Stereo Component: There will be two Output Faders.

a. **Output Link - Stereo Component Only**

This control will link the 2 Output Faders. It will always maintain any relative offset between the faders and stop moving both once either fader reaches the end stop.

11. Link I/O

Clicking on this control will link the Input and Output Level controls with an inverse link law (every db raised in Input Level control will decrease the Output level by same amount of db).
Initial Value: Off
On/Off switch

12. EQ

EQ In/Out toggle control, will bypass the EQ filters without affecting the Phase reverse button.
It is a 2 state button control – In & Out.
Default Setting: In.
Stereo Component: There is only one EQ In/Out button for both sides.

13. Phase

The Phase reverse In/Out toggle control, will reverse the phase after the EQ stage.
It is a 2 state button control – In & Out.
Initial value: Out.
In MS Mode: The Left Phase button will control the Mid signal in the Matrix. The Right Phase button will control the Side signal in the Matrix**.**

Chapter 3 – The WaveSystem

3.1 The WaveSystem Toolbar

All Waves plugins feature the WaveSystem toolbar which takes care of most of the administrative functions you will encounter while working with your Waves software. The features of the WaveSystem toolbar are the same on practically all Waves plugins, so familiarity with its features will be helpful whichever plugin you are using.

Toolbar Functions

	Opens the plugin About box
Undo	Undoes the last 32 actions
Redo	Redoes the last 32 undone actions
Setup A/B	Toggles between two presets, useful for comparison of parameter settings
L/R Arrows	Move to the previous or next preset
Copy A→B	Copies the current settings to the second preset register
Load	Recalls presets from file
Save	Saves presets in the Waves file formats
?	Opens the PDF manual for the plugin you are using

3.2 Preset Handling

Preset Types

Factory Presets are permanent presets in the Load menu. Factory presets cannot be overwritten or deleted. When applicable, different component plugins may have different factory presets.

User Presets are your favorite settings of the plugin saved as a preset in the Load menu, under 'User Presets'. User Presets can be overwritten and deleted.

Setup Files may contain more than one preset. For example, a single file can contain all the presets for a session. When you open a Setup File, all its setups become part of your Load pop-up menu for fast

access. This can be particularly useful with multiple instances of a plugin in a single session. By saving all the settings you create into a single Setup File, they can all be quickly available for every instance of that plugin.

Loading Presets and Setups

Click on the Load button to see the Load pop-up menu. The menu is divided into four sections. If a section is not currently available it will not appear in the Load pop-up menu.

Open Preset File… Select to open any setup or preset file, whether from the Library or your own creations.

'Filename.xps': Displays any currently loaded Setup File and its presets.

Factory Presets: Displays the default Factory Presets.

User Presets: Displays any loaded User Presets.

Saving Presets and Setups

Click on the Save button to see the Save pop-up menu. Four options are available. If an option is not currently available it will be grayed out and inaccessible.

Save to New File… Select this to start a new Setup file. There are two prompts - first for the setup filename, then for the preset name. You must provide a name for both the setup file and the preset. Click OK (ENTER) to complete the save. It is a good idea to create a folder in which to save several setup files for a project.

Save 'File Name' – "Preset Name" Overwrites the settings of the loaded preset (whether a User Preset or a preset from a Setup File) with the current settings. If a Setup File is currently loaded, the name of the Setup File is displayed followed by the name of the preset itself. If a User Preset is loaded, its name is displayed.

Save to 'File Name' As… Saves the current settings as a new preset into the Setup file that is open (if one is not open, the option is grayed out). You will be prompted to give the preset a name.

Put into Preset Menu As… Save the current settings into a User Preset that will always be in your Load menu (until deleted). You will be prompted to give this preset a name. User Presets are stored in the plugin's preference file.

Deleting Presets

You may delete User Presets and presets within a Setup File. Factory Presets and Setup Library files cannot be deleted or overwritten.

1. Hold the Command (Mac)/Control (PC) key down.
2. Click-and-hold the Load button to see the pop-up menu.
3. While still holding the Command/Control key, select the preset or setup to delete.
4. A confirmation box will appear, allowing you to cancel or 'OK' the deletion.

A/B Comparison and Copying

The Setup A/Setup B button may be clicked to compare two settings. If you load a preset in the Setup B position, this will not affect the preset loaded into the Setup A position, and vice-versa.

If you want to slightly modify the settings in Setup A, you can copy them to Setup B by clicking on the Copy to B button, then alter Setup A and compare with the original Setup B.

The name of the current setup will be shown in the title bar (on platforms which support it), and will switch as you change from Setup A to Setup B.

Note: an asterisk will be added to the preset name when a change is made to the preset.

3.3 Interface Controls

Controls can be in one of three states:

1. **Not Selected** where the control is not the target of any user entry
2. **Selected** where the control is the target of mouse control entry only
3. **Selected and Active** where the control is the target for both mouse and keyboard entry

Toggle Buttons

Toggle buttons display the state of a control, and allow switching between two or more states. **Single-click** to change the control's state. Some toggle buttons have a text display which updates with the current setting, and others (bypass, solo, or monitoring toggles) illuminate when the control is active.

Some plugins have **link buttons** between a pair of toggle buttons, allowing click-and-drag adjustment while retaining the offset between the controls.

Value Window Buttons

Value windows display the value of a control and allow **click-and-drag** adjustment, or **direct control via the keyboard**.

- **Using the mouse**, click-and-drag on the value window to adjust. Some value windows support left/right, some up/down (as you hover over a button, arrows will appear to let you know which direction of movement that button supports). You may also use your mouse-wheel to adjust parameter values.
- **Using the arrow keys**, click once with mouse to select the button, and then use up/down – left/right (depending on the direction supported by that button) to move in the smallest incremental steps across the button's range (holding down the arrow keys will move faster through the range).
- **Using key entry**, double click on the button to open the value window, and directly enter the value from your keyboard. If you enter an out of range number, the button stays selected but remains at the current setting. (System beeps if system sounds are on.)

Some plugins have **link buttons** between a pair of value windows, allowing click-and-drag adjustment while retaining the offset between the controls.

Sliders

Click or scroll the mouse-wheel on the slider itself or anywhere within the sliders track. The numerical value of the slider settings is displayed in a hover window above the slider path.

Hover Box

Hovering boxes will appear and display the control value when hovering with the mouse over the control.

Multiple Control Selection

One of the most powerful features of the WaveSystem is the ability to select and adjust multiple controls simultaneously. Using the mouse, drag-select the desired group of buttons or graphic controls by clicking and holding at a point outside the controls, and forming a rectangle that includes the controls you wish to adjust. Alternatively, press and hold Shift while clicking the mouse on any control you wish to link. This method is useful when you want to select two or more controls that are not adjacent to one another.

TAB Functions

TAB moves the ‘selected’ status to the next control, with shift-TAB moving in the reverse direction. Additionally, the Mac has an option-TAB function for ‘down’ movement and shift-option-TAB for ‘up’ movement where applicable. If you have several Value Window Buttons selected, TAB functions will take you through the selected controls only.

Hitting Esc or Return will return the 'focus' to the DAW application.

3.4 Waves Preferences (Pro Tools DAE only)

When launching Pro Tools, hold Shift to view the Waves plugin Preferences window. The following options are available:

- Don't use AudioSuite plugins
- Don’t use RTAS plugins
- Rescan all plugins
- HUI control surface support (low resolution)
- Enable single-click text entry