URALEQ

ADVANCED MULTIBAND PROCESSOR

USER MANUAL

TABLE OF CONTENTS

ABOUT

Uraleq is an advanced multiband processor with multiband compressors, delays, and balance controls. Featuring comprehensive Mid/Side processing, linear-phase FIR filters, flexible parameter settings, and LFO modulation, Uraleq is suitable for both mixing, mastering, and creative processing.

SYSTEM REQUIREMENTS

Microsoft Windows 8.1 or later.

Microsoft Visual C++ Redristibutable Package (2015 Version).

Powerful workstation when used with the higher order linear-phase FIR filters and oversampling option on the compressors.

INCLUDED CONTENT

- Uraleq for VST3 (64-bit)

- Uraleq Presets

- Uraleq User Manual

- Uraleq End User License Agreement (EULA)

END USER LICENSE AGREEMENT (EULA)

1. General

1.1   This End User License Agreement ("EULA") is a legal agreement between you and Flandersh Tech.

1.12   This EULA agreement governs your acquisition and use of Uraleq ("Software") directly from Flandersh Tech or indirectly through a Flandersh Tech authorized reseller or distributor (a "Reseller").

1.2   Please read this EULA agreement carefully before completing the installation process and using the Uraleq software. It provides a license to use theUraleq software and contains warranty information and liability disclaimers.

1.3   By clicking "accept" or installing and/or using the Uraleq software, you are confirming your acceptance of the Software and agreeing to become bound by the terms of this EULA agreement.

1.4   If you are entering into this EULA agreement on behalf of a company or other legal entity, you represent that you have the authority to bind such entity and its affiliates to these terms and conditions. If you do not have such authority or if you do not agree with the terms and conditions of this EULA agreement, do not install or use the Uraleq software, and you must not accept this EULA agreement.

1.5   This EULA agreement shall apply only to the Software supplied by Flandersh Tech herewith regardless of whether other software is referred to or described herein. The terms also apply to any Flandersh Tech updates, supplements, Internet-based services, and support services for the Software, unless other terms accompany those items on delivery. If so, those terms apply.

1.6   This EULA was created by EULA Template for Tonetta Blue and modified for Uraleq.

2. Socialware

2.1   This software is socialware and to use it you agree to participate, with humility and love, in social actions, of your choice, for the improvement of human relationships and society. This may include, but are not limited to, social support of people in need of it, anti-bullying work, prevention of child abuse and neglect, reduction of unemployment and poverty, community work and peace work.

3. License Grant

3.1   Flandersh Tech hereby grants you a personal, non-transferable, non-exclusive licence to use the Uraleq software on your devices in accordance with the terms of this EULA agreement.

3.2   You are permitted to load the Uraleq software (for example a PC, laptop, mobile or tablet) under your control. You are responsible for ensuring your device meets the *minimum requirements* of the Uraleq software.

3.3   You are not permitted to:
- Edit, alter, modify, adapt, translate or otherwise change the whole or any part of the Software or permit the whole or any part of the Software to be combined with or become incorporated in any other software, nor decompile, disassemble or reverse engineer the Software or attempt to do any such things.
- Reproduce, copy, distribute, resell or otherwise use the Software for any commercial purpose.
- Allow any third party to use the Software on behalf of or for the benefit of any third party.
- Use the Software in any way which breaches any applicable local, national, international or universal law.
- Use the Software for any purpose that Flandersh Tech considers is a breach of this EULA agreement.

4. Intellectual Property and Ownership

4.1   Flandersh Tech shall at all times retain ownership of the Software as originally downloaded by you and all subsequent downloads of the Software by you. The Software (and the copyright, and other intellectual property rights of whatever nature in the Software, including any modifications made thereto) are and shall remain the property of Flandersh Tech.

4.2   Flandersh Tech reserves the right to grant licences to use the Software to third parties.

5. Product Liability

5.1   The software is provided "*as is*" with possible bugs, and without any warranties expressed or implied. In no event shall Flandersh Tech be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising out of the use of or inability to use this software or documentation, even if the author has been advised of the possibility of such damages.

6. Termination

6.1   This EULA agreement is effective from the date you first use the Software and shall continue until terminated. You may terminate it at any time upon written notice to Flandersh Tech.

6.2   It will also terminate immediately if you fail to comply with any term of this EULA agreement. Upon such termination, the licenses granted by this EULA agreement will immediately terminate and you agree to stop all access and use of the Software. The provisions that by their nature continue and survive will survive any termination of this EULA agreement.

7. Governing Law

7.1   This EULA agreement, and any dispute arising out of or in connection with this EULA agreement, shall be governed by and construed in accordance with the laws of Norway.

8. Third-Party Software

8.1   This software was made possible by the generous work of several skilled people and credits goes to:
- Lee Louque for the RoyTech Roy Mpack Lte.
- Elena Design (Elena Novaretti) for the Elena Modules Pack.
- Andrew Allen Ainslie for the TD Modules.
- Rob Herder for the RH-DSP Modules.

The copyright and other intellectual property rights of these modules are and shall remain the property of these skilled developers.

8.2 This Software is VST Compatible. VST is a registered trademark of Steinberg Media Technologies GmbH.

FILTERS

MULTIBAND CROSSOVER

CROSSOVER - FILTER TYPE

You should start using this multiband processor by deciding the type of crossover filters to be used. The default is a Linkwitz-Riley crossover made out of **IIR** filters. The alternative is to use linear-phase **FIR** filters with a variable *attenuation factor*.

*The order of the FIR filters is adjusted according to the frequency range it covers. This affects the CPU load, as a smaller frequency range requires a higher order, demanding more of the CPU, to be able to adjust to its steepness. This should be taken into account when deciding on the crossover filter and its frequency ranges.

**Changing between these two kinds of crossover filters should not be done in realtime as it may interrupt the sound.

CROSSOVER - FIR ATTENUATION

If you select FIR filters for the crossover, you can adjust the attenuation of the filters with this parameter, ranging from 12 dB attenuation to 120 dB attenuation.

SPLIT FREQUENCY

The blue boxes with a Hz sign attached to it, marks the **Split Frequency** parameter. These user customizable boxes, that you can click inside to change, let you set the frequencies that will split the signal into the four bands. The first frequency splits between the 1st and 2nd band, the second frequency between the 2nd and 3rd band, and the third frequency between the 3rd and 4th band.

LR/MS

The **LR/MS** buttons control the stereo mode to be used for each band. LR sets the band in a normal Left/Right mode, wherease MS transform it to a sum-and-

difference signal, popularly called for Mid/Side. Setting the band in MS mode will change the layout and some of the technology of part of the bands, adapting to the different mode of processing.

GAIN

The **Gain** faders controls the gain of each of the band and can boost or cut the signal +/-18 dB. In MS mode the single **Gain** fader per band is replaced with separate Gain controls over the Mid and Side part of the signal. This is useful for the purpose of frequency dependent boosting and cutting of the Mid and Side part of a signal.

M

The **M** buttons let you mute each individual band. In this way it becomes possible to hear only one band temporarily when tweaking for better control. It may also be used more creatively as a lowpass, bandpass, or hipass filter.

INPUT/OUTPUT GAIN

The **Input/Ouput** faders controls the gain of the signal before and after it is processed. This should be set according to the material to be processed.

LOW CUT/HIGH CUT FILTERS

The Low Cut Filter and the High Cut Filter are independent FIR filters suitable for reducing unwanted low frequent or high frequent noise, in example electrical hum (50/60 Hz).

OFF/ON

The **Off/On** parameter turns the independent FIR filters off or on.

* As the Low Cut FIR filter covers small frequency ranges, 20 Hz on its lowest, it requires a very high order and is demanding on the CPU. This should be taken into account before deciding to turn it on.

FREQUENCY

The **Frequency** parameter sets the cutoff frequency for the filters. The Low Cut Filter can be set between 20 Hz and 80 Hz. The High Cut Filter can be set between 15 kHz and 20 kHz.

CHANNEL STRIP

BALANCE

The **Balance controls** sets the panning of the Left/Mid and Right/Side signal present in the band. To pan the Left and Right signal different on different frequency bands may be useful in widening the stereo image.

DUAL DELAY

The Dual Delay consists of two delays with separate delay time control and common feedback and mix control. Used with short delay times, it may be used for spatialization or special effects. With longer delay times, it may be used as an echo effect.

DELAY TIME

The black box with MS in the mid marks the **Delay Time** of the dual delay. This is a full user customizable parameter, as the split frequencies, and set the delay time in milliseconds for both the Left/Mid and Right/Side channels.

FB

The **FB** parameter sets the amount of feedback in both of the delays.

MIX

The **Mix** parameter controls the ratio between the dry signal and the delay processed (wet) signal. When turned to the hard left, the dual delay doesn't affect the signal.

COMPRESSOR

The Compressor is a nonlinear process that affect the dynamic range of the signal. This is the most common and sought after processor in multiband setups. However, it is also a processor that is often misused and should be used critical so as to not wreck the dynamic range of the mix.

THLD

The **Thld** parameter sets the threshold in dB [-48 dB, 0 dB] for when the compressor will kick in and process the signal. Peaks that exceed the set threshold will be processed.

RATIO

The **Ratio** parameter controls how much gain reduction is applied when the signal exceed threshold.

ATTACK/RELEASE

The **Attack/Release** parameters sets the attack and release time of the compressor. These are full user customizable parameters, as with the delay times and split frequencies, and set how fast, in milliseconds, the signal is processed and released when the signal exceed the threshold.

KNEE

The **Knee** parameter smooths the gain reduction curve. Hard left gives a hard knee, and hard right gives a soft knee.

MIX

The **Mix** parameter controls the ratio between the dry signal and the delay processed (wet) signal. When turned to the hard left, the compressor doesn't affect the signal. May be used for parallell compression.

DE-COMPRESSION

The **Triangle** button reverse the polarity of the sidechain signal, turning the compressor into a de-compressor (upward expander). This mode is useful for repairing damage made by compression, or to make the mix louder in a natural way. It should however be used with care, as the levels will rise with it.

OVERSAMPLING

Clicking on the **Comp label** will present you with the option to turn on **oversampling** for the compressor. This is useful for reducing *aliasing* as a result of the nonlinear processing that a compressor is, however it will demand more of the CPU. It is recommended to only turn on oversampling of the compressors used to save CPU.

 *This should not be changed in realtime, as it may interrupt the sound.

MID/SIDE MODE

When Mid/Side mode is activated on the band, independent compressors with independent controls for the Mid and Side band become present. The **Mid/Side** button change between the two compressors in this mode.

VU-METER

The VU-Meter let you get a feeling on which bands to process (**In**) and the dynamic effects of the processing done (**Out**). VU-meters are not very precise (they do not measure True Peak and so), however they work great as loudness indicators. In the multiband setting this become helpful as to what frequency bands may be in need of work.

MODULATION

LFO1/LFO2

The Low Frequency Oscillators let you modulate the amplitude, balance and delaytime of the bands, and is provide for creative effect processing - like autopanning, frequency dependent AM and creative delay modulation. LFO1 can only be routed to the Left or Mid channel of a signal when used for amplitude modulation or delay modulation. LFO2 can only be routed to the Right or Side channel of a signal when used for amplitude modulation or delay modulation.

SHAPE

The **Shape** parameter sets the shape of the oscillator used for modulation. It can be set as sine, saw, ramp, triangle, pulse, white noise, and pink noise.

RATE

The Rate parameter sets the frequency of the oscillator. This range from 0.01 Hz to 12 Hz.

DEPTH

The **Depth** parameter controls the amount of modulation applied to the modulation destination

DESTINATION

The **Destination** controls the destination of what is to be modulated. When not in use, this is set to None.