Mix-Chan Strip & Console

Description:

The Mix-Chan plugin is an advanced channel processor designed to provide a wide range of audio processing tools in one place. This plugin combines compression, EQ, noise gate, and saturation features into an intuitive and modern graphical interface. Each section of the plugin can be individually adjusted to offer detailed control over the audio signal, allowing for precise and creative adjustments.

Detailed Description of Mix-Chan Plugin Sections

1. Input Section

The Input section is the first stage in the plugin's processing flow. Its main function is to receive and prepare the input signal for further processing. Here, the initial settings such as gain, saturation, and desktop noise are applied to the signal. In addition, high-pass (HPF) and low-pass (LPF) filters can be applied to remove unwanted frequencies before the signal enters the next processing stages.

2. Processing Section (Gate, Compressor, EQ)

This section is the most complex and versatile section of the plugin. In it, the signal passes through a series of processing modules including a compressor, a crawler and an equalizer. The sequence in which these modules are applied can be customized according to the user's needs, allowing for great flexibility in sound design. Each of these modules has its own features and functions:

- **Gate** : The crawler reduces or completely eliminates the signal when it drops below a certain threshold, which helps to reduce background noise and improve signal clarity.
- **Compressor:** The compressor controls signal dynamics, reducing differences between volume peaks and valleys for a more uniform and controlled mix.

- **EQ**: The EQ allows precise adjustments to be made in different frequency bands, allowing the user to shape the tone and texture of the signal.

3. Output Section

The Output section is the last stage in the plugin's processing flow. Here, the already processed signal is finally adjusted and prepared for output. VU meters provide a visualization of signal activity, while calibration allows the scale of the meters to be adjusted for better interpretation. Shelving filters allow additional adjustments to be made to the high and low frequencies, and soft and hard clipping offer options to limit the signal and avoid distortion. Finally, the signal is sent to the outlet with all the modifications made during the process.

Parameters:

1. **SumThing Group** : Allows you to select the group to which the channel belongs.
2. **Desk Mode** : Select between different desktop modes (Digital, 1-Tube, 2-Warm, 3-Punch).
3. **Desk Saturation Amount** : Adjusts the amount of desktop saturation.
4. **Desk Noise Amount** : Adjusts the amount of noise on the desktop.
5. **HPF Frequency** : Defines the cut-off frequency of the high-pass filter.
6. **LPF Frequency** : Defines the cut-off frequency of the low-pass filter.
7. **Low Shelf Frequency** : Defines the center frequency of the low shelf.
8. **Low Shelf Gain** : Adjusts the gain of the low shelf.
9. **Low Shelf Q** : Controls the quality factor of the low shelf.
10. **Low Bell On** : Enables or disables the bell mode for the low shelf.
11. **Low On** : Enables or disables the low shelf.
12. **Mid Shelf Frequency** : Defines the center frequency of the middle shelf.
13. **Mid Shelf Gain** : Adjusts the gain of the middle shelf.
14. **Mid Shelf Q** : Controls the quality factor of the middle shelf.
15. **Mid On** : Enables or disables the middle shelf.
16. **High Shelf Frequency** : Defines the center frequency of the high shelf.
17. **High Shelf Gain** : Adjusts the gain of the high shelf
18. **High Shelf Q** : Controls the quality factor of the high shelf
19. **High Bell On** : Enables or disables the bell mode for the tall shelf.
20. **High On** : Enables or disables the high shelf.
21. **Gate Threshold** : Defines the threshold of the noise gate.
22. **Gate Hysteresis** : Defines noise gate hysteresis.
23. **Gate Attack** : Defines the attack time of the noise gate.
24. **Gate Hold** : Defines the noise door retention time.

25. **Gate Release** : Defines the release time of the noise gate.
26. **Gate Sidechain** - Enables or disables the use of a side-entry signal for the noise gate.
27. **Compressor Type** : Select the compressor type (Digital, Vari Mu, VCA, Opto, FET).
28. **Comp Thresh** : Defines the threshold of the compression.
29. **Comp Ratio** : Defines the compression ratio.
30. **Comp Attack** : Defines the attack time of the compression.
31. **Comp Release** : Defines the release time of the compression.
32. **Comp Bypass** : Enables or disables compression.
33. **VCA Ratio** : Selects the compression ratio for the VCA compressor.
34. **VCA Plot** - Enables or disables the compression curve display.
35. **LA2 Peak Reduction** : Defines the peak reduction for the LA2 compressor.
36. **LA2 Output Gain** : Adjusts the output gain for the LA2 compressor.
37. **NC76 Input Gain** : Adjusts the input gain for the NC76 compressor.
38. **NC76 Attack** : Defines the attack time for the NC76 compressor.
39. **NC76 Release** : Defines the release time for the NC76 compressor.
40. **EQ Order** : Defines the order of EQ sections.
41. **EQ Bypass** : Enables or disables EQ.
42. **Output Calib** : Adjusts the output calibration.
43. **Output Trim** : Adjusts the output trim.
44. **Softclip** : Enables or disables soft limiting.
45. **Hardclip** : Enables or disables hard limiting.
46. **Trim Post Clipper** : Defines whether the trim is applied before or after the clipper.
47. **General Bypass** : Enables or disables all processing.
48. **Input Stage Bypass** : Enables or disables input stage processing.
49. **Input Gain** : Adjusts the input gain.

On the Menu:

- **Group Selection** : Allows you to select the group to which the channel belongs.
- **Desk Selection** : Allows you to select the desktop mode.
- **Chain Routing** : Allows you to select the order of the processing sections.

Usage Tips:

1. **Use the Noise Gate Carefully** : The noise gate can eliminate unwanted noise, but it can also negatively affect the signal dynamics. Adjust the attack, hold, and release parameters carefully.
2. **Adjust Compression** Gradually: Start with low ratio and threshold values, and adjust gradually until you find the desired sound. Avoid over-compression to maintain the natural dynamics of the signal.
3. **Use EQ for Correction** : Use EQ to correct specific pitch issues instead of making general adjustments. This can help improve signal clarity and definition.
4. **Experiment with Different Console Modes** : Each console mode offers a unique feature. Experiment with different modes to find the one that best suits your needs.
5. **Use Soft Limiting to Prevent Saturations** : Soft limiting can help prevent saturations without negatively affecting signal dynamics. Adjust the soft throttling threshold to avoid excessive spikes.

Acknowledgments

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Summary:

Mix-Chan is an advanced channel processor that offers a unique combination of precision and flexibility. Its intuitive and modern graphical interface, along with its multiple adjustment options, make it an essential tool for any audio producer looking to improve the quality and clarity of their mixes. Whether it's for subtle corrections or creative adjustments, Mix-Chan is an excellent choice for any digital audio production project in Reaper DAW.