

Mollusk Voice Changer for Max/MSP

User Manual / 用户手册

Version 1.1.1 | 2026-10-12 | Max/MSP port by 沁墨蓝汐

Transform microphone or recorded audio with squid- and octopus-like voice effects. This package runs inside Max and provides the original effect controls through a native Max panel.

将麦克风或录音处理为类似鱿鱼、章鱼的变声音色。本程序在 Max 内运行，通过原生 Max 面板控制原项目的效果参数。

1. Compatibility / 运行环境

Requirement / 项目	Supported release / 本发布版
Computer / 电脑	Apple Silicon Mac (arm64); native Max / 原生运行 Max
Operating system / 系统	macOS 15.0+; tested on / 实测 15.7.3
Host / 宿主	Max 9.0.8; later versions unverified / 后续版本未验证
Included format / 格式	Max external (.mxo) + Max patch (.maxpat)

Intel Mac and Windows binaries are not included. This release has been tested in the Max application; it is not a Max for Live device, AU or VST3 plugin. Max must be installed separately.

本包不含 Intel Mac 或 Windows 二进制文件。已在独立 Max 应用中验证，不是 Max for Live 设备，也不是 AU/VST3 插件。请另行安装 Max。

2. Installation / 安装

Add the folder to Max / 在 Max 中添加文件夹

1. Unzip the release. Keep the complete **MolluskVoiceChanger-Max** folder in a permanent location. Select the folder that directly contains **externals**, **javascript** and **patchers** in the following steps.

1. 解压发布包，将完整的 **MolluskVoiceChanger-Max** 文件夹放在固定位置。下文要选择的是直接包含 **externals**、**javascript** 和 **patchers** 的这一层文件夹。

2. Open Max. Choose **Options > File Preferences....** Click **+ / Add Path**, then **Choose**, and select that **MolluskVoiceChanger-Max** folder. Enable **Subfolders** for the new path so Max can find the files inside its subfolders.

2. 打开 Max，选择 **Options > File Preferences...**。点击 **+ / Add Path** 新增一行，再点击 **Choose**，选择上述 **MolluskVoiceChanger-Max** 文件夹。勾选这一行的 **Subfolders**，让 Max 同时查找子文件夹。

3. Restart Max. Open **patchers/Mollusk Voice Changer.maxpat** inside that folder. The panel opens in Presentation mode. The **.mxo** files are loaded by Max; open the **.maxpat** to use the panel.

3. 重启 Max，打开该文件夹内的 **patchers/Mollusk Voice Changer.maxpat**。面板默认进入 Presentation 模式。**.mxo** 由 Max 加载，使用时打开的是 **.maxpat**。

Where the files belong / 文件放在哪里

Paths below are relative to the **MolluskVoiceChanger-Max** folder you added. Keep these files in place; do not move the **.mxo** files separately.

下列位置均以刚才添加的 **MolluskVoiceChanger-Max** 文件夹为起点。保持原目录结构，无需单独移动 **.mxo** 文件。

File / 文件	Location / 所在位置
DSP external / 音频对象	externals/mollusk~.mxo
UI external / 界面对象	externals/mollusk.ui.mxo
Host script / 控制脚本	javascript/mollusk-host.js
Main panel / 主面板	patchers/Mollusk Voice Changer.maxpat

Preserve the **mollusk.ui.mxo** symbolic link to **mollusk~.mxo**. If you move the folder later, update its entry in File Preferences. Back up your saved patches and XML presets before an update. JUCE and the Max SDK do not need separate installation.

保留 **mollusk.ui.mxo** 指向 **mollusk~.mxo** 的符号链接。以后移动整个文件夹时，也要更新 File Preferences 中的路径。更新前先备份自己的补丁和 XML 预设；无需另行安装 JUCE 或 Max SDK。

3. Microphone input / 麦克风输入

1. Select **Mic** from the upper-left source menu. Open **Settings**, select your input and output devices, and map your microphone to Max input channel 1.
2. Allow microphone access for Max if macOS asks. Use headphones for live monitoring to avoid feedback.
3. Enable **Audio**, speak and watch **INPUT**. Select a character preset, then adjust **Volume** while watching **OUTPUT**.
1. 在左上角音源菜单选择 **Mic**。打开 **Settings**，选择输入和输出设备，将麦克风映射至 Max 输入通道 1。
2. 若 macOS 请求麦克风权限，请允许 Max 使用。实时监听建议使用耳机，避免扬声器声音重新进入麦克风产生啸叫。
3. 打开 **Audio**，说话并观察 **INPUT**。选择角色预设，再配合 **OUTPUT** 电平调节 **Volume**。

Audio controls Max's global DSP switch. Turning it off also stops audio processing in other patches in that Max session. Opening this patch does not automatically enable Audio; an already-running Max audio engine remains running.

Audio 控制 Max 的全局 DSP 开关。 关闭它也会停止同一 Max 会话中其他补丁的音频处理。打开本补丁不会自动开启音频；若 Max 原本已开启音频，则继续运行。

4. Audio-file input / 音频文件输入

Click **Open** and select an audio file. This switches the source to **File** without starting playback. WAV and AIFF are recommended; other formats offered by the chooser depend on Max's decoder support.

点击 **Open** 选择音频文件，音源自动切换至 **File**，但不会立即播放。建议使用 WAV 或 AIFF；对话框列出的其他格式取决于 Max 的解码支持。

Control / 控件	Action / 操作
Play / 播放	Start from the beginning and enable Audio if needed. / 从头播放，必要时自动开启 Audio。
Pause / 暂停	The Play button becomes Pause during playback. / 播放时，同一个按钮显示 Pause。
Resume / 继续	Continue from the paused position. / 从暂停位置继续播放。
Stop / 停止	Stop playback; the next Play starts from the beginning. / 停止后再次播放会从头开始。
Loop / 循环	Repeat the file. / 循环播放文件。
Mic / 麦克风	Stop file playback and return to the microphone. / 停止文件播放并返回麦克风。

Processing uses the **left input channel** and copies the processed result to both outputs. Stereo files are not summed to mono; their right channel is retained only with **Bypass All**. Use a mono voice file, or place the voice on the left channel.

正常处理使用**左输入通道**，处理结果复制到左右输出。立体声文件不会自动混合为单声道；右声道仅在 **Bypass All** 时直通。请使用单声道人声文件，或确保人声位于左声道。

5. Basic controls / 基础控制

Choose **Squid Girl**, **Squid Boy**, **Octopus Girl** or **Octopus Boy** as a starting point. Drag a knob to adjust it. Basic and Advanced control the same parameters.

可从四种角色预设开始：**Squid Girl / Squid Boy / Octopus Girl / Octopus Boy**。拖动旋钮调整参数，Basic 与 Advanced 两页控制的是同一组参数。

Control / 控件	Range and purpose / 范围与作用
Input Sensitivity / 输入灵敏度	-80 to 0 dB. Noise-gate threshold; lower values admit quieter speech. This is not an input gain control. / 噪声门阈值，越低越容易让较轻的声音通过；不是输入增益。
Pitch / 音高	0 to +12 semitones, 0.5-step. Raises pitch. / 0 至 +12 半音，以 0.5 半音步进提高音高。
Brightness / 明亮度	-12 to +12 semitones, 0.5-step. Shifts formants to change vocal character. / 移动共振峰，改变声音的音色特征。
Bubble / 气泡	0 to 1. LFO filter dry/wet mix. / LFO 滤波效果的干湿比例。
Slimy / 黏滑	0 to 1. Phaser dry/wet mix. / 移相效果的干湿比例。
Lo-Fi / 低保真	0 to 1. Band-pass filter dry/wet mix. / 带通滤波效果的干湿比例。
Volume / 音量	-60 to +12 dB; default 0 dB. Final output gain. / 最终输出增益，默认 0 dB。

Reading the meters / 读取电平

INPUT shows the selected left-channel signal before processing. The white vertical line marks the noise-gate threshold; it is not the input level. The indicator beside it reflects the gate's reported open/closed state. **OUTPUT** shows the signal after processing and output gain. Both bars clear shortly after DSP stops.

INPUT 显示当前音源左声道在处理前的电平。白色竖线表示噪声门阈值，不是输入电平；旁边圆点表示噪声门反馈的开启/关闭状态。**OUTPUT** 显示处理与输出增益之后的电平。DSP 停止后，两条电平会很快清空。

If the processed voice is quiet, increase **Volume** gradually. There is no added automatic gain compensation, compressor or limiter. If the output distorts or approaches clipping, reduce Volume or the input level.

处理后音量较小时，可逐渐提高 **Volume**。本版没有额外加入自动增益补偿、压缩器或限幅器。若输出失真或接近削波，应降低 Volume 或输入电平。

6. Advanced controls / 进阶控制

Click **Advanced** to access each processing stage; scroll when needed. Click **Basic** to return. **Bypass** disables one stage. **Bypass All** passes the original input through and also bypasses Volume.

点击 **Advanced** 进入各处理模块，必要时滚动查看；点击 **Basic** 返回。模块内的 **Bypass** 旁通该模块；**Bypass All** 直接输出原输入，也会旁通 Volume。

The signal passes through these stages in order / 信号依次经过以下模块：

Stage / 模块	Controls / 参数
Noise Gate / 噪声门	Threshold -80 to 0 dB; Attack 1-100 ms; Release 10-500 ms. / 阈值、起音和释放时间，控制轻声与底噪能否通过。
High Pass / 高通滤波	Cutoff 20-500 Hz. Removes low-frequency content. / 截止频率，减少低频成分。
Pitch / 音高	Shift 0 to +12 semitones. / 提升音高，范围为 0 至 +12 半音。
Formant / 共振峰	Shift -12 to +12 semitones. Changes vocal resonance. / 改变共振峰位置与声音特征。
LFO Filter / LFO 滤波	Lowpass / Bandpass / Highpass; cutoff, resonance, rate, depth, dry/wet, random rate. / 低通、带通或高通；调节截止、共振、速率、深度、干湿比及随机速率。
Phaser / 移相器	Rate, depth, feedback and dry/wet. / 速率、深度、反馈与干湿比。
Band Pass / 带通滤波	Centre frequency, Q and dry/wet. / 中心频率、Q 值与干湿比，塑造较窄的频段音色。
Output Gain / 输出增益	-60 to +12 dB. / 最终音量调节。

Bypass states are independent of character presets. After comparing dry and processed sound, turn off the relevant bypass controls to hear the effects again. Character presets also leave the Random Rate switch as it was.

旁通状态独立于角色预设。 比较原声与效果声后，需要手动关闭相应旁通，才能重新听到效果。角色预设也不会重置 Random Rate 开关。

Pitch and formant processing can add latency. When the corresponding shifts are zero, the original processing path skips their FFT stages. Max's audio buffer size also affects monitoring delay; choose a setting your device can run without dropouts.

音高与共振峰处理可能增加延迟。对应偏移量为零时，原算法会跳过相应 FFT 环节。Max 的音频缓冲区大小也会影响监听延迟，应选择设备能够稳定运行、不产生断音的设置。

7. Presets, saving and language / 预设、保存与语言

Export Preset saves the effect settings as XML. **Import Preset** loads a Mollusk Voice Changer XML preset. A preset stores effect parameters, not audio files, device selection, transport or interface language.

Export Preset 将效果参数保存为 XML；**Import Preset** 读取 Mollusk Voice Changer 的 XML 预设。预设只保存效果参数，不包含音频文件、设备选择、播放状态或界面语言。

Use **File > Save As** to create your working patch, then **Command-S** to keep changes. The patch stores effect parameters, interface language, selected source, loop setting and the file path. It does not embed the audio file or resume playback automatically. Max's audio-device settings belong to Max itself.

先用 **File > Save As** 保存自己的工作补丁，之后用 **Command-S** 保存修改。补丁会记录效果参数、界面语言、音源、循环设置和文件路径；不会嵌入音频文件，也不会自动继续播放。音频设备设置由 Max 自身管理。

When sharing a saved patch that uses a recording, supply an audio file you have permission to share. On the receiving computer, use **Open** to select its local copy and save the patch again.

分享使用录音的补丁时，请另行提供有权分享的音频。接收方需要点击 **Open** 选择自己电脑上的音频副本，再保存补丁。

Use the upper-right menu to select **English**, **中文** or **日本語**. Language changes affect labels, not the sound.

通过右上角菜单选择 **English / 中文 / 日本語**。切换语言只改变界面文字，不改变声音。

8. Use in your own Max patch / 用于自己的 Max 补丁

The easiest approach is to save a copy of the supplied patch and adapt its routing. Keep the signal object, UI and host bridge in the same patcher when retaining the built-in Mic/File controls.

最简单的方式是另存本包提供的补丁，再修改路由。保留内置 Mic/File 功能时，应将信号对象、UI 与宿主脚本留在同一层 patcher 中。

For a custom signal path, pair `mollusk~ voice1` with `mollusk.ui @instance voice1` in the same patcher. The left inlet processes audio and accepts parameter messages. The first two outlets carry audio; the third carries parameter/state messages. The UI is a controller, not an audio object. Its Mic/File toolbar requires the host wiring shown in the supplied patch.

自定义信号路径时，在同一层 patcher 中配对 `mollusk~ voice1` 与 `mollusk.ui @instance voice1`。左输入端接收音频与参数消息，前两个输出端输出音频，第三个输出端输出参数/状态消息。UI 只负责控制；顶部 Mic/File 功能需要示例补丁中的宿主连线。

Example messages / 消息示例：`param pitch_semitones 12 · param gain_db 3 · preset 0 · dump`

Use a different instance name for each independent voice in one patcher. Separate patchers are isolated. Pair one signal object with one panel for each voice; do not share one engine between parallel audio paths.

同一层 patcher 中，每个独立声音使用不同的 instance 名称；不同 patcher 之间已隔离。每个声音配对一个信号对象和一个面板，不要让并行音频路径共用同一个引擎。

9. Troubleshooting / 常见问题

Objects are missing or the panel is blank / 对象无法识别或面板空白

First check **Options > File Preferences...**: add the extracted **MolluskVoiceChanger-Max** folder, enable **Subfolders**, then restart Max. Confirm that both **.mxo** files remain in **externals** and **mollusk-host.js** remains in **javascript**. The Settings and Mic/File controls depend on that script being found and loaded.

先检查 **Options > File Preferences...**：添加解压后的 **MolluskVoiceChanger-Max** 文件夹，勾选 **Subfolders**，然后重启 Max。确认两个 **.mxo** 均保留在 **externals** 中，**mollusk-host.js** 保留在 **javascript** 中。Settings 与 Mic/File 控制需要该脚本被正常找到并加载。

If the problem remains, copy the exact Max Console error and check the requirements in section 1. A correct search path cannot fix an incompatible system or CPU. This build is ad-hoc signed, not Apple-notarized; a reported macOS security rejection needs separate diagnosis.

若仍无法加载，请复制 Max Console 的具体报错，并核对第 1 节的运行环境要求。搜索路径正确不能解决系统或芯片不兼容。本包使用 ad-hoc 签名，未经过 Apple 公证；若报错明确指向 macOS 安全拦截，需另行排查。

No input meter / INPUT 没有电平

Enable Audio. For Mic, check the input device, microphone permission and channel 1 mapping. For File, press Play and confirm that the file's left channel contains audio. The white line is the gate threshold, not a level indication.

打开 Audio。Mic 模式下检查输入设备、麦克风权限和通道 1 映射；File 模式下点击 Play，并确认文件左声道有声音。白色竖线是门限，不代表输入电平。

INPUT moves but there is no sound / INPUT 跳动但没有声音

Lower the noise-gate threshold to admit quiet speech. Check Volume and the output device/channel mapping. If OUTPUT moves, inspect the audio interface, headphones and Max output routing.

降低噪声门阈值，让较轻的语音通过；检查 Volume、输出设备及通道映射。若 OUTPUT 已跳动，应继续检查声卡、耳机和 Max 输出路由。

The voice is quiet or distorted / 声音太小或失真

Increase Volume gradually for a quiet effect. Reduce it if the output clips. Check that Output Gain is not bypassed. Input Sensitivity changes the gate, not microphone gain; input gain is adjusted on the device or before this effect.

效果音量小时逐渐提高 Volume，发生削波时降低。确认 Output Gain 没有被旁通。Input Sensitivity 调节的是噪声门，麦克风输入增益应在设备或本效果之前调整。

File unavailable, or playback does not start / 文件不可用或无法播放

Use Open to select an existing local file again. A saved path may belong to another computer or disconnected drive. If a format does not decode, convert it to WAV/AIFF and reopen it. Opening a file alone does not start playback.

用 Open 重新选择本机存在的文件。旧路径可能属于其他电脑或未连接的硬盘。若格式无法解码，请转为 WAV/AIFF 后重试。仅打开文件不会自动开始播放。

Presets appear to have no effect / 切换预设后没有效果

Turn off Bypass All and check each stage's Bypass switch. Use a voice recording or microphone signal with clear left-channel audio.

关闭 Bypass All，并检查各模块的 Bypass。使用左声道清晰可闻的人声录音或麦克风信号。

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This is a Max/MSP port of [hyakkei/MolluskVoiceChanger](#).

Original project: <https://github.com/hyakkei/MolluskVoiceChanger>

Original author: [Ito Hyakkei \(hyakkei\)](#)

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Modification date: [2026-10-12](#)

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本项目基于 [hyakkei/MolluskVoiceChanger](#) 移植至 Max/MSP。原作者为 [Ito Hyakkei \(hyakkei\)](#)，移植者为 [沁墨蓝汐](#)，修改日期为 [2026-10-12](#)。

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Source and third-party components / 源码与第三方组件

Complete corresponding source and build instructions are included in [source/MolluskVoiceChanger-Max/](#). It contains the Max adapter, original processing source, pinned JUCE and Max SDK dependencies, font assets and build scripts. Users may study, modify and redistribute it under the applicable license terms.

完整对应源码与构建说明位于 [source/MolluskVoiceChanger-Max/](#)，包含 Max 适配代码、原处理源码、固定版本的 JUCE 与 Max SDK、字体素材及构建脚本。可按适用许可证条款学习、修改和再分发。

The original DSP stages and parameter ranges are retained. Port changes cover Max integration, Mic/File routing and transport, multilingual labels, saved state, input/output meters, instance isolation and buffer allocation. This release adds no automatic loudness normalization or limiting.

本版保留原处理模块与参数范围。移植修改包括 Max 集成、Mic/File 路由与播放控制、多语言文字、状态保存、输入输出电平、多实例隔离及缓冲区分配；未添加自动响度归一化或限幅。

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Max package installation reference / Max 包安装参考：<https://docs.cycling74.com/userguide/packages/>