

SlowPunch - User Guide

Slow Playback & Impact Enhancement Tool

Version: 1.0

Website: rockheyday.com

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Format: Standalone Application (Windows 64-bit)

Audio Engine: 96 kHz Ready / 32-bit Floating Point

SlowPunch is a standalone audio app designed for fast, creative impact and low-end enhancement. It allows you to:

- **Adjust Playback Speed:** Slow down or speed up audio with pitch following speed.
- **Punch:** Add rich, analog-style impact and harmonic excitement to your sound with soft saturation.
- **Bass:** Boost your low-end to make kicks and sub-bass hits fuller, from clean to deep boom.

Beyond these sonic transformations, SlowPunch features high-resolution visual feedback including a **real-time dual-layer spectrum analyzer (Dry/Wet FFT)**, allowing you to see the effect of Punch and Bass in real time. With easy drag-and-drop loading and WAV export, SlowPunch is designed for quick, fun, and impactful sound shaping, perfect for deep exploration and refinement of your audio.

Key Features

- **Engine:** Slow-Playback & Impact Enhancement Processor
- **Speed Control:** Variable 0.5x to 1.5x playback rate for creative tempo shifts
- **Punch:** Add rich, analog-style saturation for dynamic impact
- **Bass:** Boost low-end energy from subtle warmth to deep boom
- **Processing:** Smooth real-time DSP with zero-latency architecture
- **Utility Controls:** Bypass for instant A/B comparison
- **Analyzer:** High-resolution dual-layer spectrum display (Dry/Wet FFT)
- **FFT Engine:** 4096 / 8192-point resolution with Blackman window
- **Response Model:** Internal 4.5 dB tilt and 350 ms ballistic decay
- **Metering:** Dual-layer LR Peak meters (background = input, top ticks = output)
- **Stereo Tool:** Correlation meter for phase monitoring
- **Output:** Post Gain trim control, -12 dB to +12 dB
- **Playback:** Drag & Drop loading with Loop functionality
- **Export:** Render processed audio to WAV (16-bit or 24-bit)
- **Precision:** 32-bit floating-point processing
- **Sample Rates:** 44.1–96 kHz support

Standalone Architecture

The standalone architecture enables instant loading, looping, and analysis of audio files without requiring a DAW. It's designed for fast, focused audio work—whether checking references, making precise adjustments, or performing detailed evaluations.

CPU-Efficient Processing

Each tool is engineered with highly optimized DSP and lightweight graphics, ensuring stable, low-latency performance in both standalone and VST3 formats—even under heavy analysis or high sample rates.

Analyzer and Windowing

High-Resolution Spectrum Engine

This tool provides a high-resolution real-time spectrum display optimized for accurate dual-layer frequency visualization during playback.

Blackman Windowing

An ultra-low spectral leakage Blackman window provides clean frequency separation and stable fundamentals, minimizing spectral smearing between adjacent bands.

Precision Engine Support

The application operates using a high-resolution 32-bit floating-point processing engine, optimized for desktop performance and stable real-time operation.

Standalone File Management and Export

Flexible Loading

- **Load Button:** Browse files via your system dialog.
- **Drag & Drop:** Drag audio files directly onto the window for instant loading.

Audio Export

It is intended for reference renders, comparison, and archiving.

- **Format:** WAV
- **Bit Depth:** Selectable 16-bit or 24-bit

WAV Output Only

The application processes all audio in high-resolution 32-bit float, so exporting to compressed formats would cause generation loss and artifact buildup. To preserve full fidelity, the output is limited to uncompressed WAV with selectable 16-bit or 24-bit depth.

Credits

Development: Application architecture, processing integration, analysis engine, and user interface design by Hakan Yurdakul. DSP implementations use JUCE framework components.

Framework: Developed using the JUCE framework.

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Installation & First Launch (Windows)

SlowPunch is a portable standalone application. No installation is required.

1. Download and unzip the file.
2. Double-click **SlowPunch.exe** to launch the application.

Note: On the first launch, Windows may display a “**Windows protected your PC**” message. This occurs because the application is not yet code-signed by Microsoft.

To continue:

1. Click **More info**
2. Click **Run anyway**

The application does not install background services or modify system files.