

Retouch4me HSL Mask v1.0.1

Interactive Adobe Photoshop plugin for professional HSL mask and selection creation

1. Upper Control Panel

- **Invert Mask / Invert Selection** — instantly inverts the affected area without recalculating or duplicating layers. The button label automatically adapts to the active mode (Mask or Selection).
- **Show Mask** — full-screen preview of the mask on the canvas in grayscale (black-and-white preview mode).
- **Smart Visibility Toggle** :
 - When «Show Mask» is active: clicking the eye temporarily hides the black-and-white mask and displays the original color photo to inspect results («Hide Mask (Show Image)»). Clicking again restores the mask. Moving any HSL slider while the mask is hidden automatically wakes up the mask preview (auto-wake).
 - In layer mask mode (Output: Mask): enables or disables the layer mask (`userMaskEnabled`) in Photoshop.
 - In selection mode (Output: Selection): temporarily hides or reveals the «marching ants» selection border without resetting the configured range.
- **Mask Overlay (Ruby Overlay)**  — displays the mask as a red translucent overlay (Rubylith) on top of the color image. Works in both layer mask and selection modes. Activated strictly by click.
- **Eyedropper**  — samples color by clicking on the image, automatically centering all three HSL channels. Creates very narrow rectangular ranges with zero feathering (feather) for maximum precision selective masking.
- **Picker + (Add Color)**  — adds a new color sample to the existing range with gentle, adaptive boundary expansion.
- **Master Reset (Reset Button)** :
 - Normal click (without Shift): step-by-step smart undo (1st click rolls back to the state before the last action, 2nd click resets all channels to 100%).
 - Shift-click (Shift + Reset): toggles feathering (clicking expands narrow rectangular shapes into wide trapezoids with feathering; clicking again switches back to narrow rectangular shapes with `Feather = 0`).

2. Settings Menu (Panel Flyout Menu)

Accessible via the panel menu icon  in the top-right corner of the plugin:

- **Denoise Mask (Median 1px):**

Before calculating HSL ranges, the plugin creates a temporary copy of the layer and applies a 1px median filter to it. This completely eliminates digital noise, compression artifacts, and micro-holes along mask edges. The resulting clean mask is applied to your **original, 100% sharp photo**.

- **Output Mode:**
 - **Create: Layer Mask (Output: Layer Mask)** — standard workflow: creates or updates a raster layer mask on the active layer. Action button: «Create Mask».
 - **Create: Selection (Output: Selection)** — generates an active selection («marching ants») based on HSL color ranges without creating a mask. Action button: «Create Selection».

3. HSL Channels (Hue, Saturation, Lightness)

- **Channel On/Off Switch** : temporarily disables filtering for this channel (passes 100% of the range).
- **Range Indicator**: clearly displays the active range (e.g. 48° - 84° for Hue, or 25% - 75% for Saturation and Lightness).
- **High-Precision Scales**:
 - **Hue**: circular scale from 0° to 360° in 60° increments.
 - **Saturation / Lightness**: percentage scale from 0% to 100% in 25% increments.
- **Control Buttons**:  (**Shrink**) and  (**Expand**) — fast symmetrical narrowing or widening of the range boundaries.
- **Channel Reset** : single click resets/rolls back this channel; Shift-click toggles feathering (expands into trapezoid / returns to narrow rectangle with Feather = 0).

4. Interactive Curve & Point Editing

- **Bottom points (0 and 3)**: define the start and end of falloff (feathering / feather).
- **Top points (1 and 2)**: define the 100% opacity selection plateau.
- **Vertical (side) edges**: dragging by the left or right edge moves 2 corresponding points simultaneously (0 and 1 on the left, 2 and 3 on the right) while preserving the falloff width.
- **Center of shape**: dragging by the center of the shape slides the entire range across the scale, keeping its width and feathering intact.
- **Seamless Hue Wrap**: supports seamless cyclic wrap-around across 0° / 360° (red sector) to freely isolate hues at the junction of the color spectrum.

5. Working with the Shift Key

Holding Shift provides enhanced precision when positioning points — slows down point movement (4 px mouse movement = 1° or 1%), allowing you to adjust ranges with single-unit accuracy.

Control Element	Normal Action	With Shift Pressed
Dragging Points & Edges	Standard fast movement	Precision Micro-Adjustment : slowed movement with 1-unit steps for pixel-perfect accuracy
Dragging Shape Center	Standard range sliding	Ultra-precise range sliding in 1-unit increments
Channel Reset 	Step-by-step undo / channel reset	Feathering Toggle : expands shape into trapezoid / returns to narrow rectangle (Feather = 0)
Master Panel Reset 	Step-by-step undo of all channels	Feathering Toggle : expands all channels into trapezoids / returns to rectangles (Feather = 0)

6. Finalizing the Result

The «**Create Mask**» / «**Create Selection**» button computes the final high-precision result using hardware-accelerated HSL LUT processing. In mask mode, it renders a smooth raster layer mask on the active layer; in selection mode, it generates an active selection contour ready for adjustment layers, fills, or local retouching.