



synthesis

HEALTH

Chrome Performance Optimization for Radiology Voice Workflow

Chrome Performance Optimization for SynthSpeech+VISION Workflow

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Introduction

This document provides instructions for optimizing Chrome's performance and audio stability on **Windows workstations**. Following these steps has shown **remarkable improvements** in voice recognition accuracy and reduced scroll-induced errors for SynthSpeech while scrolling simultaneously in SynthVISION.

System Requirements

- **Windows PC** with the latest version of Google Chrome
 - **SpeechMic (or any microphone)** set to **44.1 kHz** sample rate
 - Adequate power (laptop plugged into mains, if applicable)
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Step-by-Step Setup

1. **Launch Google Chrome**
2. In the address bar, type: <chrome://flags/#enable-web-speech>
3. **Search for the following flags (use Ctrl-f as a shortcut to “find”)** and enable each:

a. Override software rendering list

- **Flag:** #ignore-gpu-blocklist
- **Set to:** Enabled
- **Purpose:** Forces GPU acceleration even on unsupported configs.

b. GPU rasterization

- **Flag:** #enable-gpu-rasterization
- **Set to:** Enabled
- **Purpose:** Uses the GPU for rendering web content, reducing CPU load.

c. Zero-copy rasterizer

- **Flag:** #enable-zero-copy
- **Set to:** Enabled
- **Purpose:** Reduces overhead by writing directly to GPU memory.

d. Chrome-wide echo cancellation

- **Flag:** #chrome-wide-echo-cancellation
- **Set to:** Enabled
- **Purpose:** Improves microphone input clarity by canceling echoes across tabs.

e. System Audio Echo Cancellation

- **Flag:** #enforce-system-echo-cancellation
- **Set to:** Enabled
- **Purpose:** Prevents system-level audio from leaking into mic input.

1. After enabling these flags, **click the “Relaunch” button** at the bottom-right to restart Chrome with the new settings.

Audio Configuration

- **Microphone Device:** Philips SpeechMic (or equivalent)
- **Sample Rate:** 44.1 kHz (CD Quality)
- Confirm in Windows **Sound Settings** → **Input Device Properties** → **Advanced Tab**.
- **Power:** If using a laptop, ensure it’s plugged in to maximize CPU performance. For desktop machines, select the highest performance power settings.