Chrome Cleaner Use Cases – Client Overview

Project Summary

A simple Rust-based desktop app for Windows that:

- Removes Chrome extensions
- Flushes search hijackers
- Clears notification attacks
- Disables future notification permission prompts
- Logs every action taken

Use Case 1 – Remove or Review Chrome Extensions

Option A: Full Clean
The program finds all Chrome extensions across user profiles and removes them. This clears out unwanted toolbars, pop-ups, and suspicious tools that may affect browser speed or security.

Option B: Just Show Me What's Installed
The program generates a report showing all currently installed browser extensions for each user profile. This allows the user to review everything before deciding to remove anything.

Example Log:

- Found extension: *AdblockerX*
- Found extension: *SearchControlPro*
- [If cleaning] Removed extension: *SearchControlPro*

Use Case 2 – Fix or Review Search Engine Settings

Option A: Fix Hijacks
The tool checks whether the default search engine in Chrome has been tampered with. If so, it resets it to Google to restore normal search behavior.

Option B: Just Show Me What's Set
The tool scans each Chrome profile and reports what the current default search engine is. No changes are made unless the user decides to take action.

Example Log:

- Current search engine: *search-hijacker.com*
- [If fixed] Reset to: *Google*

Use Case 3 – Remove or Review Notification Spam Sites

Option A: Remove Notification Access
Many scammy websites abuse Chrome's notification feature to send unwanted ads and fake alerts. This option removes all sites that currently have permission to send notifications.

Option B: Just Show Me the List
The tool shows a list of websites that currently have permission to send browser notifications. The user can review and decide which ones to remove, if any.

Example Log:

- Found allowed notifications: *shadynews.net*, *offers-popup.ru*
- [If removed] Removed notification access: *offers-popup.ru*

Use Case 4 – Block or Review Notification Requests

Option A: Block Future Prompts
To stop the problem at its source, the app disables Chrome's ability to ask whether websites can send notifications — eliminating annoying pop-ups and spam invitations.

Option B: Just Show Me the Current Setting
The app simply reports whether Chrome is currently allowing sites to request notification permissions, without making any changes.

Example Log:

- Current setting: Notification requests = *Enabled*

- [If changed] Disabled all notification permission prompts

Technical Details

Use Case 1 — Flush All Chrome Extensions

Action Steps:

1. Detect installed Chrome profiles:
    - `C:\Users\{username}\AppData\Local\Google\Chrome\User Data\`
2. For each profile, locate:
    - `{ProfileName}\Extensions\`
3. Enumerate all installed extensions.
4. For each extension:
    - Delete the extension folder.

Logging:

- Log profile being scanned:
    - `[YYYY-MM-DD HH:MM] Scanning profile: Default`
- Log each extension deleted:
    - `[YYYY-MM-DD HH:MM] Deleted extension: ID=abcd1234 Name=AdblockerX`
    - `[YYYY-MM-DD HH:MM] Deleted extension: ID=wxyz5678 Name=SearchControlPro`

Use Case 2 — Flush Search Hijackers

Action Steps:

1. Read `{ProfileName}\Preferences` file (JSON).
2. Detect current default search provider:
    - `"default_search_provider"` section.

If hijacked, reset to Google:
{
  "name": "Google",
  "keyword": "google.com",
  "search_url": "https://www.google.com/search?q={searchTerms}"

3. }
4. Save updated Preferences file.

Logging:

- Log search engine found:
    - `[YYYY-MM-DD HH:MM] Found search engine: search-hijacker.com`
- Log fix applied:
    - `[YYYY-MM-DD HH:MM] Reset search engine to Google.`

Use Case 3 — Flush Notification Attacks

Action Steps:

1. Read `{ProfileName}\Preferences` file (JSON).

Navigate to:
"profile": {
  "content_settings": {
    "exceptions": {
      "notifications": { ... }
    }
  }

2. }
3. Enumerate all allowed notification domains.
4. Remove all entries.

Logging:

- Log each domain removed:
  - `[YYYY-MM-DD HH:MM] Removed notification permission: shadynews.net`
  - `[YYYY-MM-DD HH:MM] Removed notification permission: offers-popup.ru`

Use Case 4 — Disable Notification Prompts (Prevention)

Action Steps:

1. Modify Preferences to disable future notifications.
   - Either via Preferences file directly.
   - Or optionally via Group Policy (advanced).

Logging:

- Log existing setting:
  - `[YYYY-MM-DD HH:MM] Notification permission prompt: Allowed`
- Log action applied:
  - `[YYYY-MM-DD HH:MM] Disabled all notification permission prompts.`

Global Logging System

- Daily log files created:

    - `C:\ProgramData\SOSCleaner\logs\sos_cleaner_YYYY-MM-DD_HH-MM.log`
- All actions logged with full timestamp.
- Logs are append-only.
- Designed for technician review, customer transparency, and professional reporting.