

PureTidings Features

PureTidings Desktop & Mobile is a high-performance, privacy-first news, RSS, and newsletter intelligence workstation built with **Tauri v2** and **Rust**.

Core Architecture

- **100% Local-First & Zero Server Costs:** Operates entirely on your device with no intermediary cloud servers, user accounts, or subscription fees.
- **Native Rust Networking (Zero CORS):** Direct network queries via `reqwest` and `rustls` using your residential IP, eliminating proxy bottlenecks, browser CORS restrictions, and CDN IP blocks.
- **Unlimited IndexedDB Storage Engine:** High-capacity local persistence backed by an IndexedDB engine (`PureTidingsDB`), eliminating the 5MB browser quota and ensuring zero data write failures.
- **Multi-Platform Native Support:** Available for Windows (`.exe` , `.msi`), macOS (`.dmg`), Linux (`.AppImage` , `.deb` , `.rpm`), Chromebook (Crostini Linux & ARCVM), and Android (`.apk`).

Nextcloud & WebDAV Cross-Device Cloud Sync

- **True Cross-Device Continuity:** Synchronize your workstation seamlessly across Windows, macOS, Linux, and Android using your own Nextcloud, ownCloud, MagentaCloud, Hetzner Storage Share, or any standard WebDAV server.
- **Complete State Synchronization:** Synchronizes your entire environment: nested folder and feed hierarchy (`feedTree`), read article markers (`readLinks`), starred favorites (`favoritedLinks`), AI summaries cart (`summaryLinks`), keyword rules (`rules`), connected IMAP inboxes (`emailAccounts`), and language preferences (`appLanguage`).
- **Mathematical Last-Write-Wins (LWW) Reconciliation:** Employs formal dual timestamp maps (`favoritedArticleUrls` vs. `unfavoritedArticleUrls` , `summaryArticleUrls` vs. `unsummaryArticleUrls` , `readArticleUrls` vs. `unreadArticleUrls`). Every user interaction carries an exact microsecond timestamp, ensuring recent actions (such as favoriting on Android or reading on Windows) prevail deterministically over older states without reversion.
- **Responsive Debounced Sync & Lifecycle Flush:** Changes push to the cloud with a fast 1.5–2.5s debounce and immediately flush on mobile app minimize/background events (`visibilitychange` / `pagehide`).
- **Intelligent Set-Union Merging:** Merges article states with timestamp-based hierarchy authority (`feedTreeUpdatedAt`), ensuring changes from multiple devices blend seamlessly without data loss.
- **Brute-Force Resilient & Auto-Configuring:** In-memory endpoint caching (`ENDPOINT_CACHE`) eliminates repeated candidate probing that triggers Nextcloud's Brute Force Protection (`OCA\DAV\Connector\Sabre\Exception\TooManyRequests` / HTTP 429).
- **Proactive Directory Creation (`MKCOL`):** Automatically creates missing parent directories on the server before uploading, recovering gracefully from HTTP 404/409 errors.
- **Standard Credential & App-Password Support:** Connects securely using standard logins or Nextcloud App Passwords / Tokens.

Universal Native IMAP Email & Newsletter Hub

- **Direct, Serverless Inbox Sync:** Connect directly to any standard IMAP email account (Gmail, Fastmail, ProtonBridge, iCloud, or custom corporate domains) using secure native Rust TLS (`imap` , `native-tls` , `mail-parser`).
- **Consolidated Reading Flow:** Substack newsletters, developer digests, and financial roundups appear inside your feed hierarchy under a dedicated  `Email Inboxes` folder.
- **Bidirectional Read Synchronization:** Mark an email as read or unread in PureTidings, and the `\Seen` flag is automatically synchronized back to your mail server. Ingestion uses non-intrusive `BODY.PEEK[]` fetching.

- **Isolated Sandboxed Email Viewer:** Newsletters render inside an isolated `<iframe>` canvas that preserves complex multi-column layouts, nested tables, avatars, and stylized buttons.
- **Anti-Hotlink CDN Image Protection:** Injects `<meta name="referrer" content="no-referrer">` to load anti-hotlinked images from CDNs (SendGrid, Mailchimp, Substack, AWS) smoothly without 403 Forbidden errors.
- **Instant Light/Dark Theme Switcher:** Dedicated toolbar toggle ([🌞 Light / 🌙 Dark]) lets you inspect newsletters in their pristine white canvas or toggle inverted dark styling.
- **Pristine Multi-Format Export:** Copy or save emails and articles to Markdown (`.md`), HTML (`.html`), or Plain Text (`.txt`) with intelligent DOM sanitization that strips raw stylesheets.

🧠 Zero-Subscription AI Intelligence (BYOK)

- **On-Demand Article Summaries:** Instant, structured bullet points, executive briefings, and analytical takeaways powered directly by your own Google Gemini API key.
- **YouTube Video Summaries (TL;DW):** Multi-language transcript extraction via InnerTube producing structured video digests directly inside your feed.
- **Custom System Prompt Engineering:** Tailor AI output to your specific needs (translations, key metric extraction, action items, or Markdown tables) via settings.
- **Multi-Format AI Export:** Export generated summaries to Markdown (`.md`), HTML (`.html`), or Plain Text (`.txt`).
- **Direct Local Storage Saving:** Saves generated summaries and articles directly into your device's filesystem (`/storage/emulated/0/Download/` on Android, Downloads folder on Desktop) via native Rust IPC (`save_download_file`), with Share sheet fallback.

📁 Fluid Organization & Touch-Friendly Hierarchy Management

- **Nested Folder Hierarchy & Re-Parenting:** Group channels and email inboxes into infinite custom folder structures with an intuitive Parent Folder selector and automatic cycle detection.
- **Touch-Friendly Reordering (▲ / ▼ Buttons):** 1-tap Up (▲) and Down (▼) buttons with boundary auto-disabling for effortless reordering on touchscreens, tablets, and phones.
- **Interactive Desktop Drag-and-Drop:** Seamlessly drag and drop feeds and categories on desktop workstations.
- **Dynamic Unread Mode:** Filter your entire sidebar to display only feeds and inboxes with unread posts, automatically collapsing empty folders.

🔍 Smart Filtering & Local Rule Automation

- **Universal Boolean Search:** Filter headlines in milliseconds using robust search operators: `+` (AND), `,` (OR), and `-` (NOT).
- **Rule-Based Keyword Matches:** Automate your information monitoring by configuring keyword rules that highlight crucial topics or trigger notifications.

📄 Distraction-Free Creator Reader Mode

- **Mozilla Readability Engine:** Clean, reader-friendly view that eliminates advertisements, cookie banners, popups, and sidebars.
- **Floating, Draggable & Resizable Window:** Free-floating Reader Mode and Settings dialogs with smooth single-finger header dragging, unrestricted desktop resizing, corner grip (📐), right-edge width drag handle, 1-tap Fit/Maximize button (🖥️), and mobile landscape auto-clamping.
- **Embedded 16:9 YouTube Video Player:** Responsive full-width video player directly in Reader Mode.
- **WordPress & CMS Ready Copying:** Copy sanitized HTML fragments optimized for direct pasting into CMS editors.
- **Summary Cart Research Drawer:** Collect interesting articles across different feeds into a temporary research cart for batch reading and analysis.

Native Multi-Language Architecture (i18n)

- **Four Integrated Languages:** Full native internationalization for English (`en`), German (`de`), Spanish (`es`), and French (`fr`).
- **Instant Live Switching:** Switch languages on the fly from Settings with immediate runtime UI translation.

Native Notifications & System Integration

- **Multi-Platform OS Notifications:** Windows Toast Notifications, macOS Notification Center alerts, Linux desktop banners, and Android status bar notifications (`tauri-plugin-notification` with dedicated high-importance channel, sound, and heads-up banner).
- **System Autostart (Desktop):** Optional automatic background launch on system boot (Windows, macOS, Linux).
- **Screen Wake Lock:** Built-in option to keep mobile displays active while reading long-form content.
- **External Browser Link Routing:** Seamless link opening in your system default browser across desktop and Android (`tauri-plugin-opener`).
- **Comprehensive Local Backups & OPML 2.0:** One-click OPML 2.0 import/export, direct clipboard/text restoration modal on mobile, and scheduled daily automated backups to a dedicated local directory.

Desktop Browser Satellite Extension (Companion)

- **High-Speed Local Loopback Bridge (`127.0.0.1:41789`):** Direct communication between your desktop browser and the PureTidings Desktop application with zero cloud middleman.
- **Live Bidirectional State Sync:** Star favorites, mark articles as read/unread, and queue items into the AI Summary Card with real-time bidirectional synchronization between browser popup and desktop.
- **Browser Toolbar Popup & Unread Badge:** Instant access to unread counts and channel headlines without opening or switching to the desktop app.
- **1-Click Web Feed Discovery:** Detects RSS, Atom, and YouTube channels on active web pages and subscribes with a single click.
- **Platform-Targeted Architecture:** Designed strictly for desktop Chromium environments (Chrome, Brave, Edge). Android runs the full standalone native application (`PureTidings_aarch64.apk`), with cross-device continuity provided via Nextcloud/WebDAV.