BARCODE STUDIO

UX Design Case Study

v1.1 → v1.2.2 · Chrome Extension

What changed

- Header: logo only → theme switcher added
- Tab labels: bare names → labels with subtitles
- Format picker: tile grid → dropdown
- Preview: numbered step → standalone output section
- Trust copy: badge → full privacy sentence
- About overlay: dark → light card

What stayed the same

- 3-step creation structure
- Two-tab Create / Export split
- Batch export with .txt / .csv import
- Single export: Copy / Data URL / Download
- 100% local, zero server calls
- Purple brand identity

Context

Barcode Studio is a Chrome extension that generates QR codes and linear barcodes entirely in the browser — no accounts, no uploads, no server. It supports QR Code, EAN-13, Code 128, and UPC-A, and exports to PNG, SVG, WebP, and PDF in single or batch mode.

The old design (v1.1) shipped as a dark-only, developer-oriented utility with terse copy and a compact layout. The redesign (v1.2.2) introduced a light theme, refined the information hierarchy, rewrote the copy in plain language, and added explicit trust signals — broadening the audience without sacrificing the speed that developers valued.

v1.1 — assumed audience

- Knows what QR vs EAN-13 means
- Comfortable with dark interfaces
- Reads short, terse copy quickly
- Doesn't need trust reassurance

v1.2.2 — broadened audience

- May not know barcode terminology
- Expects light/dark/auto theme control
- Benefits from one guiding sentence per step
- Encodes sensitive data (URLs, Wi-Fi, IDs)

UX Decisions

Decisions that drove the redesign. Each is documented with the rationale and expected impact.

01. Theme switcher in the header

WHY
A theme preference is a session-level persistent setting — it belongs in the most permanent part of the UI, not in a hidden settings panel. Auto respects the OS default; Light and Dark override it.

IMPACT
Users on light-mode operating systems no longer encounter a jarring dark popup. The Auto default is a zero-friction choice that works for most users without any interaction.

BEFORE
Dark theme only. No user controls. Light-mode users had no recourse.

AFTER
Auto / Light / Dark toggle in the header. Always visible. One tap to change.

02. Format picker: tile grid → dropdown

WHY
At ~500px popup width, a 4-tile grid (PNG · SVG · WebP · PDF) was cramped. Most users need PNG. The dropdown applies the 80/20 rule: zero interaction for the common case, one interaction for everything else.

IMPACT
Recovers horizontal space in a constrained popup. PNG is pre-selected — the majority use case requires no interaction at all. Power users tap once.

BEFORE
Four equal tiles took up significant width and felt visually cluttered at popup size.

AFTER
Single dropdown, defaults to PNG. Clean, scannable, and efficient for both audiences.

03. Trust copy: badge → full privacy sentence

WHY
The old badge ('100% Local · Never sent to server') read like a marketing claim. The new sentence ('Generation runs locally in your browser — payload is not sent to a server') uses technical language that resonates with users who actually care about this — those encoding internal URLs, Wi-Fi credentials, or product IDs.

IMPACT
Trust built through specificity, not assertion. The sentence appears on both tabs, making it a persistent signal. The word 'payload' signals technical accuracy to the users most likely to scrutinise it.

BEFORE
Short inline badge. Compact but felt promotional rather than factual.

AFTER
Plain sentence in muted footer type. Technical, precise, and present on every screen.

04. About overlay: dark card → light card

WHY

The About panel is meta-information — it lives outside the main workflow. Switching to a light card on a dark backdrop communicates context change: you have stepped outside the tool. Users return to the dark interface after closing it feeling reoriented.

IMPACT

Context switching is conveyed visually, not just structurally. The light surface is also easier to read at length, which matters for a panel containing keyboard shortcuts, privacy details, and attribution.

BEFORE

Dark modal matched the extension theme. Blended with the UI, making it feel like more of the same rather than a separate layer.

AFTER

Light white card on a semi-transparent backdrop. Clearly distinct. Easier to read. Clearer to close.

User Flow

The happy path through the redesign takes six steps. At no point does the user need to read documentation.

#	Step	UX decision that supports it
1	Open extension → Create tab loads	*Tab subtitle 'Format & preview' confirms they're in the right place*
2	Choose symbology from dropdown	*Inline hint 'QR for URLs/Wi-Fi · Linear for product IDs' guides format choice*
3	Type or paste payload	*Placeholder copy tells users exactly what data is accepted*
4	Review live preview	*Standalone preview card signals output, not input — users look carefully*
5	Click 'Next: export & save'	*Full-width primary CTA — the only major button, impossible to miss*
6	Pick format (PNG default) → Download	*Dropdown pre-selects PNG — most users are done in one click*

Design Philosophy

The shift from v1.1 to v1.2.2 was not a visual refresh. It was a repositioning of who the tool is for.

The old design assumed expert users. The new design guides newcomers without slowing experts down — contextual hints can be skipped, PNG is pre-selected, the happy path needs no reading. Both audiences finish faster.

Four principles governed every decision:

One job, done well	Every element serves barcode generation. Nothing else.
Happy path needs no reading	Labels, placeholders, and button text guide users without documentation.
Trust through specificity	Privacy claims use technical language, not marketing copy.
Context in visual language	The light About overlay communicates 'you left the tool' without words.