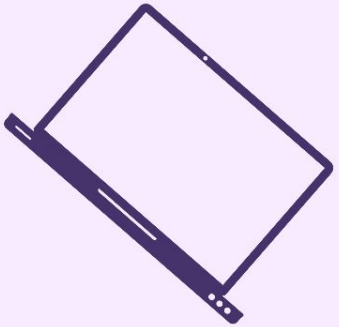
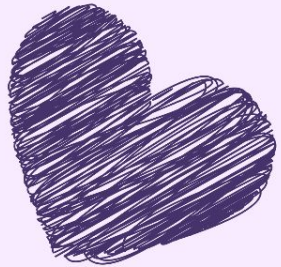
The Feature that Didn't Need to be Smart



carmenh.dev



carmenh.dev/smart-feature.pdf

Content Warning: Generative AI

2026 hits pretty different than 2009.

Carmen Huidobro
(she/her) | CTO building human, trustworthy products

Becoming Chief Technology Officer Wasn't a Promotion, It Was a Response

Apr 8, 2026

Content Warning: Burnout and other mental health struggles.

In September 2025, I left my role as Developer Educator at Directus in favour of becoming Chief Technology Officer (CTO) at Incredible Holding GmbH.

The role came at a time when I needed to respond to the changes I was seeing in the tech industry. I didn't become CTO to gain power, I stepped into the role to influence how our team operates and to address issues that many developers face systemically.

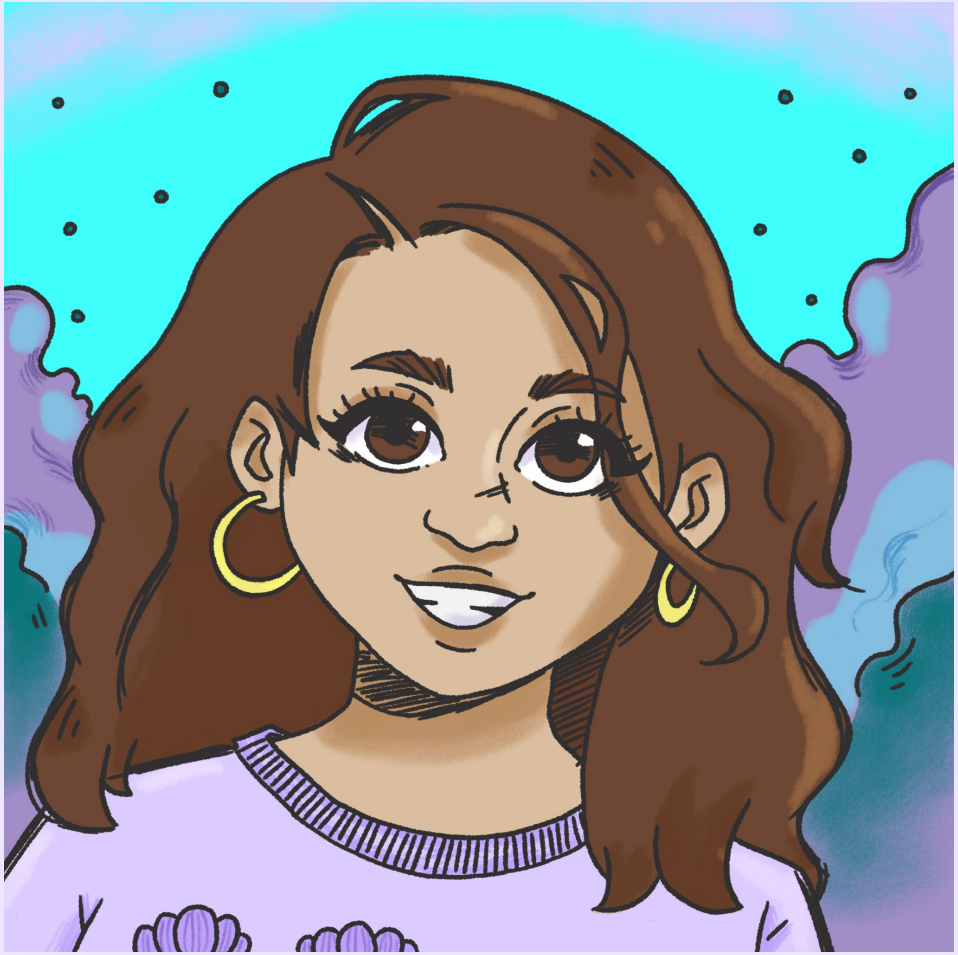
When the Burnout Hit

I loved my role at Directus. It was my first ever full-time role, and the biggest team I've ever worked for at 50+ people (don't laugh! I've been a consultant for the vast majority of my career.) There was an air of kindness, respect and motivation I hadn't witnessed before, and I'm grateful for my time there.

So I fled.

So I fled.

Or so I thought.



I'm Carmen! (she/her)

From 🇨🇱, living in 🇦🇹

Co-Founder: BadWebsite.Club

CEO, Mapache Softworks GmbH

DevRel Strategy Consultant

QueerJS Vienna Organiser

Mozilla tech speaker alum

Kids' coding coach

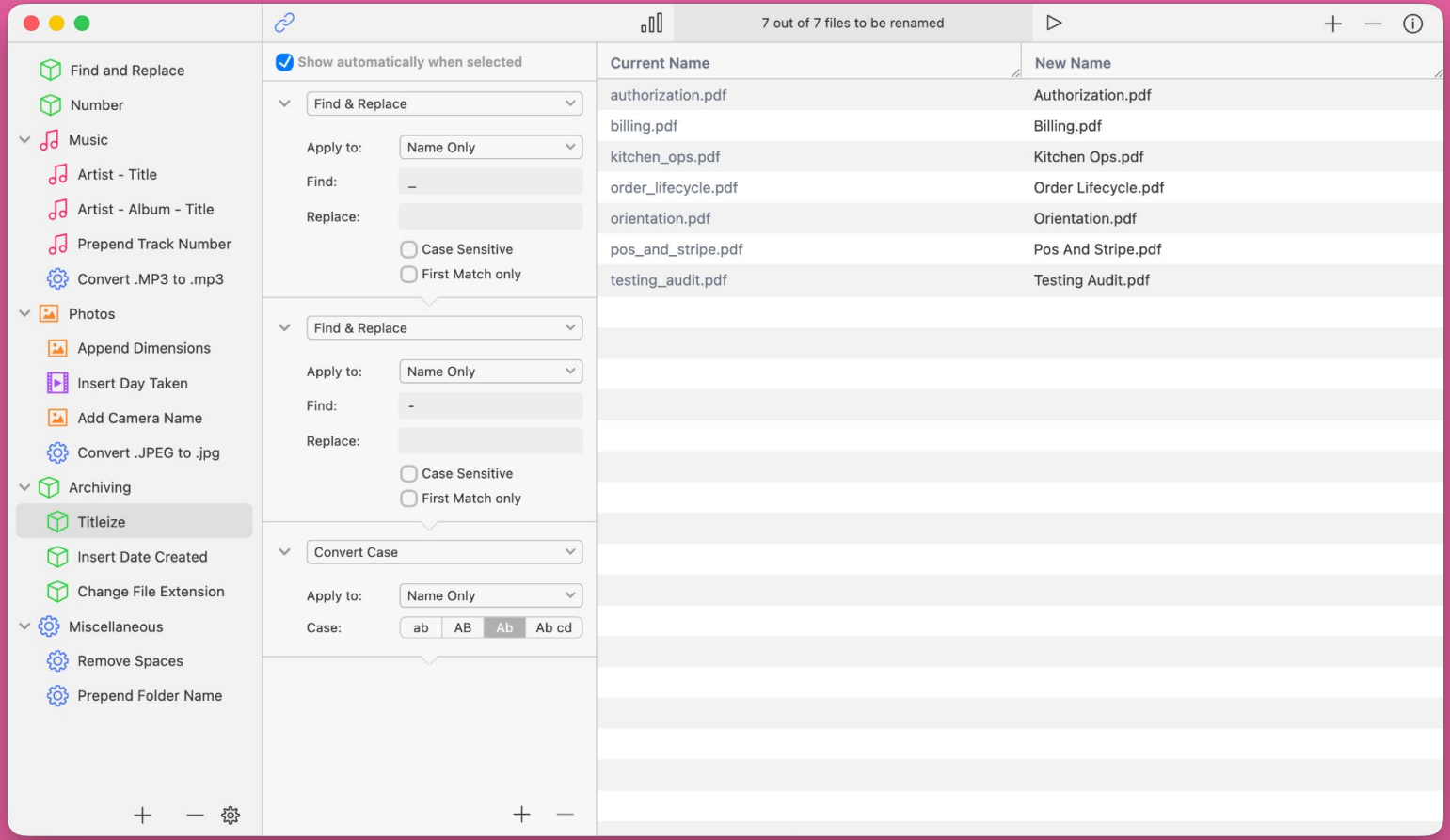
“Is there a way we can integrate AI into one of our apps?”

“Is there a way we can integrate AI into one of our apps?”

We've been here before

1	**Databases**	Structured data + human process
2	**Spreadsheets**	Transparent formulas you can audit
3	**Autocomplete / spellcheck**	Assist, don't replace
4	**LLMs today**	Narrow tools with clear boundaries

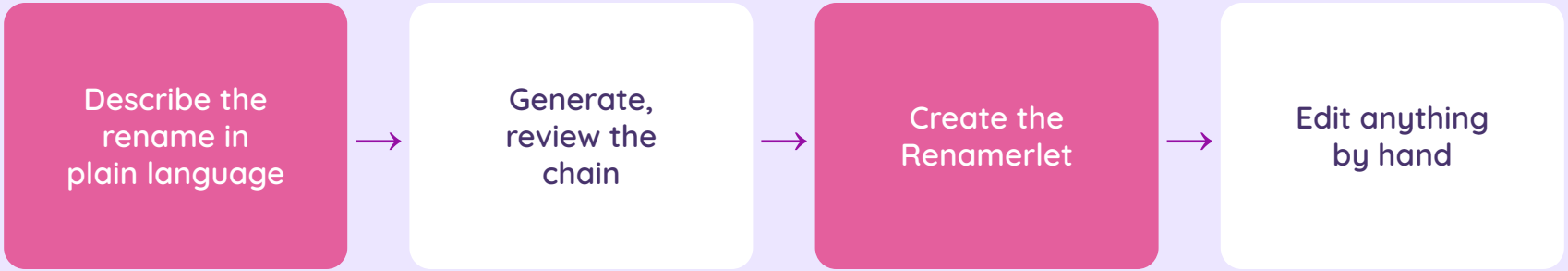
Renamer
Use Cases
Archiver
Support
Tutorial
Renamer 7
Batch File Renamer for macOS and Windows
Buy Now
Download for Mac
Not on macOS? Download for Windows
Rename thousands of files at once with reusable workflows. Use AI Assist when you're not sure how to start.
Rated 96% by 1,019 users on Setapp.
Renamer runs on macOS 15 (Sequoia) and later, including Tahoe, as well as Windows 10 and later.


7 out of 7 files to be renamed
Find and Replace
Number
Music
Artist - Title
Artist - Album - Title
Prepend Track Number
Convert .MP3 to .mp3
Photos
Append Dimensions
Insert Day Taken
Add Camera Name
Convert .JPEG to .jpg
Archiving
Titleize
Insert Date Created
Change File Extension
Miscellaneous
Remove Spaces
Prepend Folder Name
Show automatically when selected
Find & Replace
Apply to: Name Only
Find: _
Replace:
Case Sensitive
First Match only
Find & Replace
Apply to: Name Only
Find: -
Replace:
Case Sensitive
First Match only
Convert Case
Apply to: Name Only
Case: ab AB Ab Ab cd
Current Name
New Name
authorization.pdf
Authorization.pdf
billing.pdf
Billing.pdf
kitchen_ops.pdf
Kitchen Ops.pdf
order_lifecycle.pdf
Order Lifecycle.pdf
orientation.pdf
Orientation.pdf
pos_and_stripe.pdf
Pos And Stripe.pdf
testing_audit.pdf
Testing Audit.pdf

How can I add AI to a file renaming app?

"I have 9800 files from my trip to Valparaiso. How do I..."

Prompt → chain → preview



Rules

1. **No Cloud Provider** No OpenAI, no Anthropic, no OpenRouter, etc.

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4. **Opt-in by default** Existing users don't have to try it

Rules

1. **No Cloud Provider** No OpenAI, no Anthropic, no OpenRouter, etc.
2. **The LLM runs locally** Your computer, your compute, your privacy
3. **Name it something reasonable** AI Assist
4. **Opt-in by default** Existing users don't have to try it
5. **No upsell** This doesn't require a paid upgrade or a subscription or none of that nonsense

The model is a translator. Not the engine.

We won’t ask it to invent renaming, just to fill in forms we already trust.

Renamerlets { Actions

find and replace

numbers

date and time

convert case

set extension

regular expression

characters insert

characters remove

path

music

image

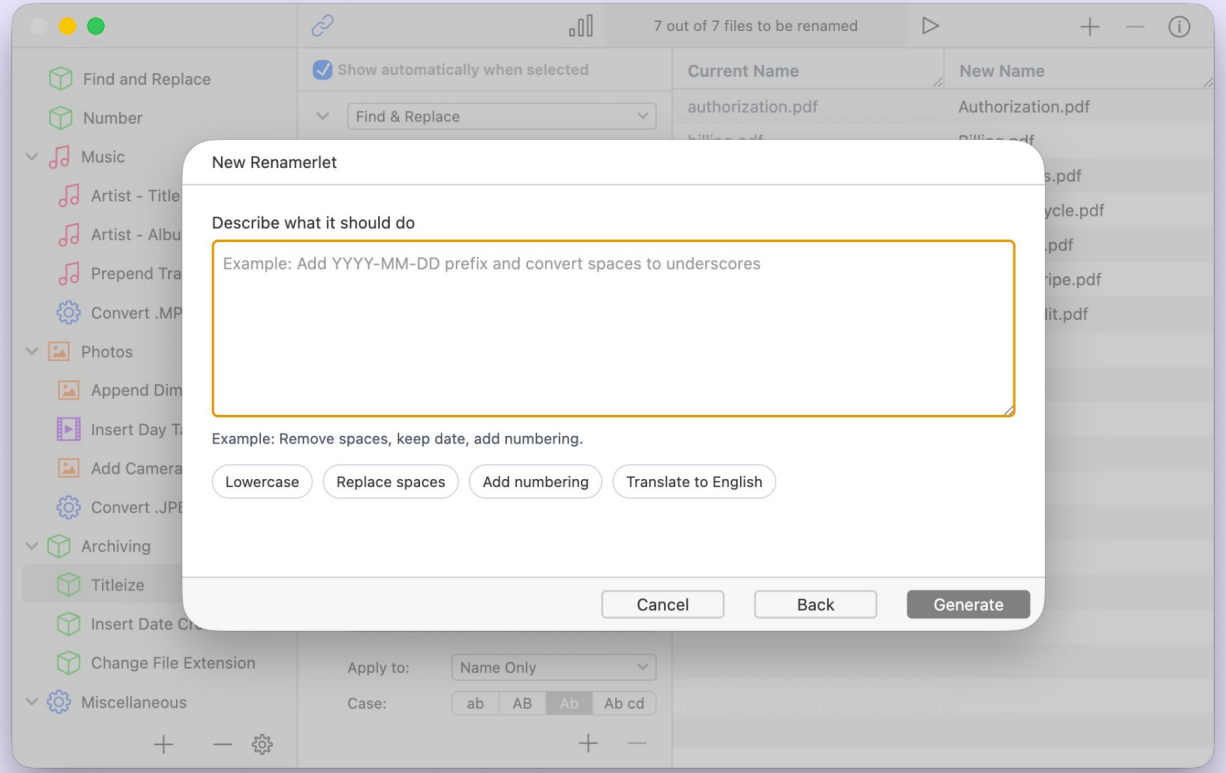
random numbers

spreadsheet

characters overwrite

```
{
    "version": "3.0",
    "renamerlet_data": [
      {
        "name": "Replace Spaces",
        "description": "Replace spaces with underscores.",
        "icon_name": "generic_item",
        "actions": [
          {
            "identifier": "find and replace",
            "file_part": 0,
            "case_sensitive": false,
            "first_match_only": false,
            "search_string": " ",
            "replace_string": "_"
          }
        ]
      }
    ]
  }
```

It's promptin' time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Artist - Albu
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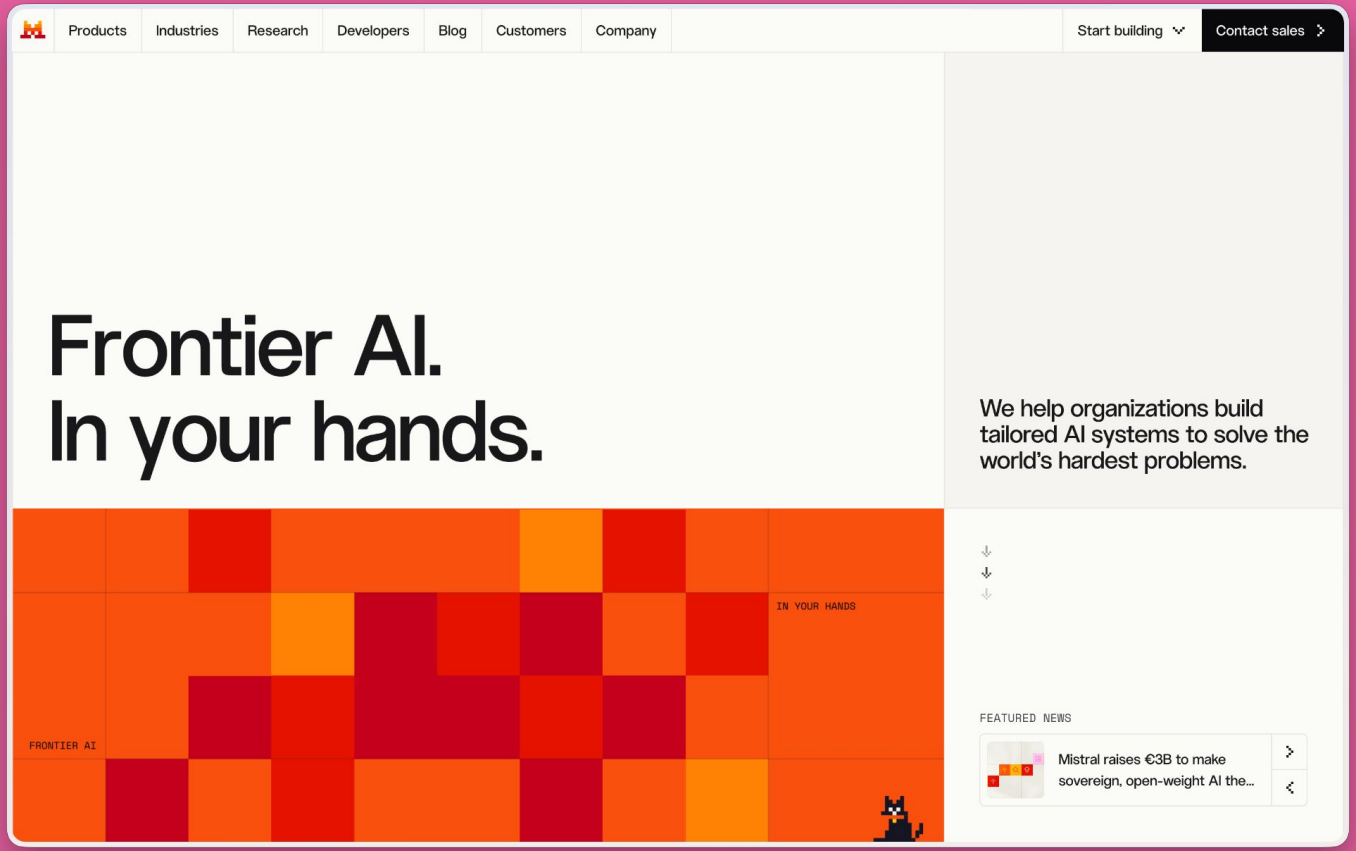
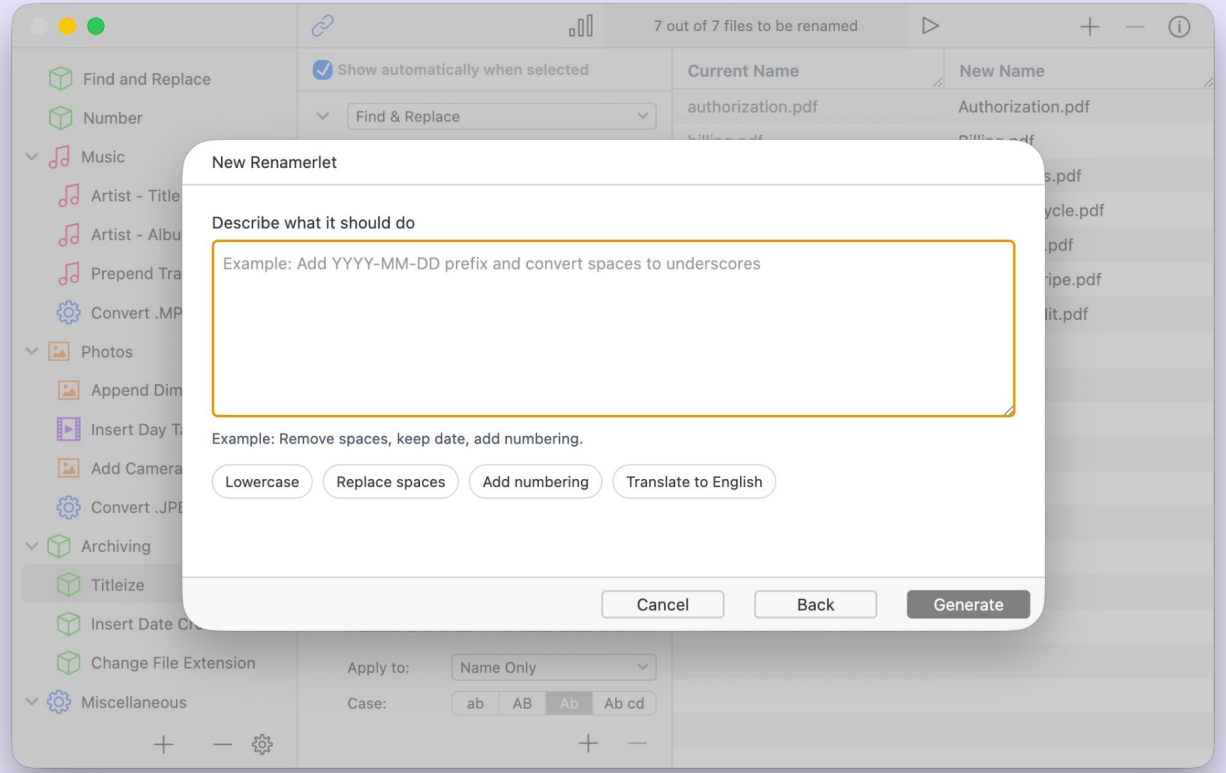
Photos
Append Dim
Insert Day T
Add Camera
Convert .JPE
Archiving
Titleize
Insert Date C
Change File Extension
Miscellaneous
Show automatically when selected
Find & Replace
Current Name
New Name
authorization.pdf
Authorization.pdf
New Renamerlet
Describe what it should do
Example: Add YYYY-MM-DD prefix and convert spaces to underscores
Example: Remove spaces, keep date, add numbering.
Lowercase
Replace spaces
Add numbering
Translate to English
Cancel
Back
Generate
Apply to:
Name Only
Case:
ab
AB
Ab
Ab cd

And now, we choose an LLM.


Products
Industries
Research
Developers
Blog
Customers
Company
Start building
Contact sales
Frontier AI.
In your hands.
We help organizations build tailored AI systems to solve the world's hardest problems.
IN YOUR HANDS
FRONTIER AI
FEATURED NEWS
Mistral raises €3B to make sovereign, open-weight AI the...

mistral.ai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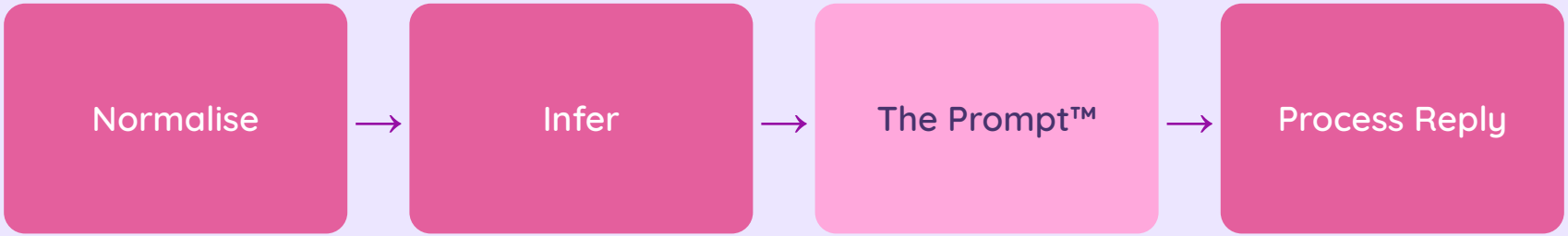
Workflow



Step 1: Normalise

Prompts should be able to be written in any spoken language,
so we translate them into English.

Normalisation

```
async translatePromptToEnglish(prompt) {
    const parsed = await this.runModelPrompt(
      this.buildTranslationPrompt(prompt),
      this.translationSchema(),
    );
    return parsed.english_prompt || prompt;
  }
```

Translate the user request to English.
Input may be in any spoken language/script.
Output English ASCII text only.
Return JSON only.
Schema: {"english_prompt":"...","detected_language":"..."}
Keep meaning exact and concise.
Translate intent semantics, not literal word order.
Do not explain.
User request:
Reemplaza espacios con guiones bajos

Step 2: Infer

Get intent hints from the user prompt to feed into the final LLM prompt

Inference

```
async generateIntentPlan(prompt, sampleNames = []) {
  const parsed = await this.runModelPrompt(
    this.buildIntentPlanPrompt(prompt, sampleNames),
    this.intentPlanSchema(),
  );
  return parsed?.primary_actions ? parsed : null;
}
```

Inference

```
intentPlanSchema() {
  return JSON.stringify({
    type: "object",
    properties: {
      primary_actions: {
          type: "array",
          items: { type: "string" }
       },
       notes: { type: "string" },
    },
    required: ["primary_actions"],
  });
}
```

Step 2: Infer

You plan renamer actions from natural language intent.
The user request may be in any language.
If not English, translate it to English internally first, then infer actions. Return one JSON object only.
Schema:
{"primary_actions":["..."],"notes":"..."}
primary_actions entries must be from:
characters insert, characters overwrite, ... spreadsheet
Prefer direct action semantics over generic regex.
... numbering / insert / music / image / path / regex rules ...
Sample filenames:
- ...
User request:
Replace spaces with underscores and append 3-digit numbering

Step 3: `buildprompt()` and llama.cpp

buildPrompt

```
buildPrompt(prompt, sampleNames, intentPlan) {
  return [
      "You output Renamerlet JSON only.",
      "Actions must use known identifiers.",
      intentPlan?.primary_actions?.length ?
        `Intent hints:
${intentPlan.primary_actions.join(", ")}` :
        "",
      `Samples: ${sampleNames.join(", ")}`,
      `User request: ${prompt}`,
    ].filter(Boolean).join("\n");
  }
```

buildPrompt

```
responseSchema() {
    return JSON.stringify({
      type: "object",
      properties: {
        type: { const: "renamerlets_json" },
        renamerlets_json: { },
      },
      required: ["type", "renamerlets_json"],
    });
  }
```

- User: Replace spaces with underscores
- Files: Oven glove.ove , Attersee.JPG , Sea star.jpg
- Icon: cube_item

You generate one Renamer .renamerlets JSON object.
Return JSON only. No prose. No markdown.

{"type":"renamerlets_json","renamerlets_json":{"version":"3.0","renamerlet_data":[{"name":"...","description":"...", "icon_name":"...","actions":[...]}]}}
General requirements:
- Produce exactly one item renamerlet.
- Do not output groups or renamerlets[]; output a single item with actions only. - Description is optional for now; do not generate or edit it.
- Use icon_name: cube_item
- User request text should shape wording and specificity, but must not contradict actions. - Apply every user-requested change.
- Every action must include its required fields; choose safe defaults if the request leaves a detail unspecified. - Output must be a single JSON object with no code fences, no backticks, and no extra keys. - Output must start with

• User: Replace spaces with underscores
• Files: Oven glove.ove , Attersee.JPG , Sea star.jpg
• Icon: cube_item

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Return JSON only. No prose. No markdown.
{"type":"renamerlets_json","renamerlets_json":{"version":"3.0","renamerlet_data":[{"name":"...","description":"...", "icon_name":"...","actions":[...]}]}}
General requirements:
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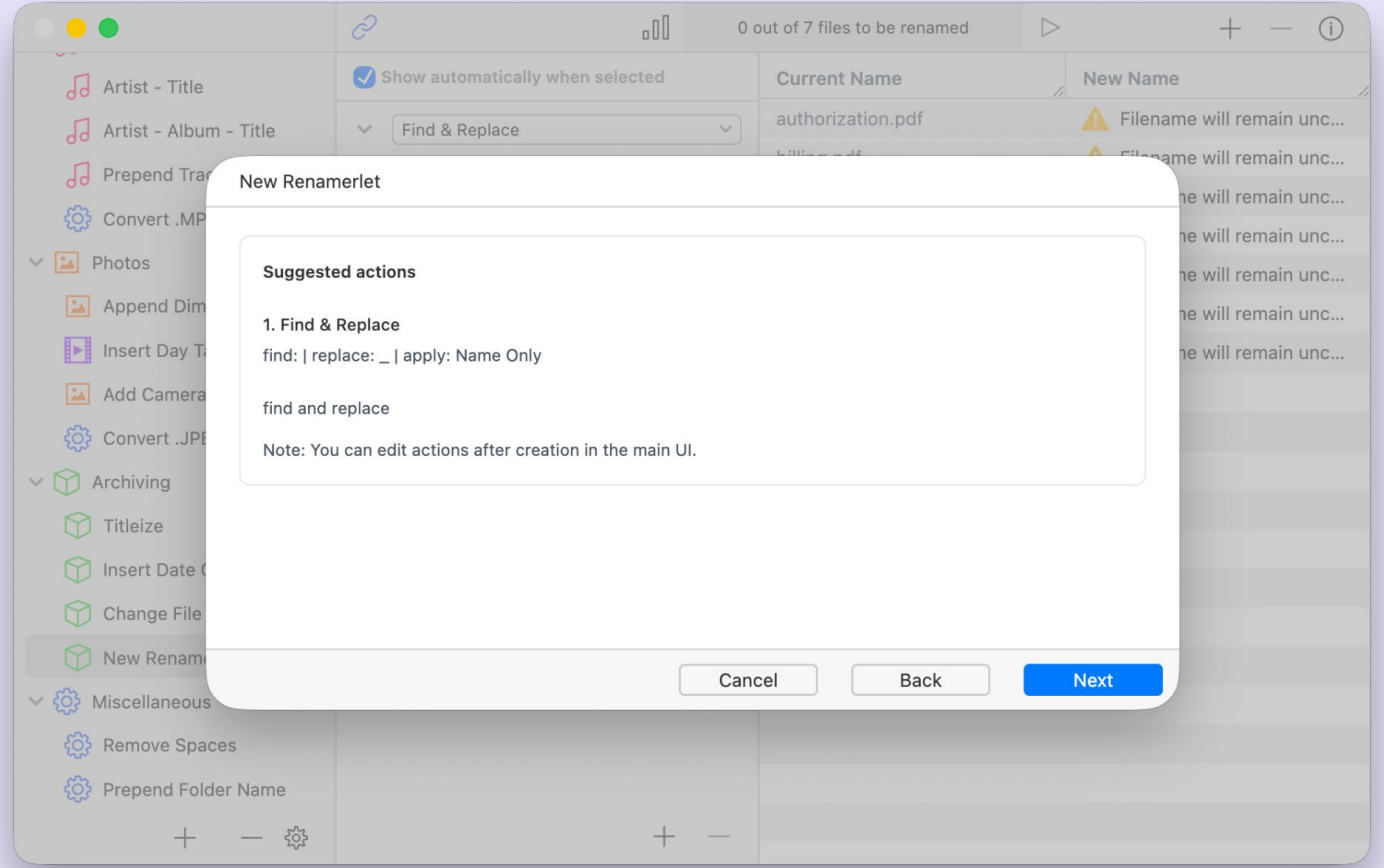
- Use icon_name: cube_item
- User request text should shape wording and specificity, but must not contradict actions. - Apply every user-requested change.
- Every action must include its required fields; choose safe defaults if the request leaves a detail unspecified. - Output must be a single JSON object with no code fences, no backticks, and no extra keys. - Output must start with '{' and end with '}' exactly. Do not wrap in ```json or add any surrounding text. - If a correction requirement conflicts with the user request, ignore the correction requirement and follow the user request.
- If a correction requirement demands 'characters insert' for a numbering-only request, ignore it and use only numbers - If a correction requirement asks for an action that is not implied by the user request, do not add it. - Self-check before returning JSON: if any find/replace/remove action uses separator words (space/underscore/dash/dot/comma/colon/semicolon/slash/backslash), rewrite them to their literal characters in the action fields.
- Self-check example: 'replace spaces with underscores' must produce search_string=' ' and replace_string='_' (not the words).
- Self-check example: 'change the date delimiter from dashes to dots' must use search_string='-' and replace_string='. '.
- Self-check example: 'Add a random 5 digit number to filenames' must use random numbers with num_digits=5 (not characters insert).
- Self-check example: 'Append sequential numbering with 3 digits' must use numbers (not random numbers) with numbering_mode=3.
... dozens more self-check / CRITICAL rules for numbering, dates, music, image, path, regex, insert, etc. ... - Never ask clarification questions.
- Keep action objects valid for Renamer schema.
- Use action field name 'identifier' (not 'type') and ensure identifier is one of the allowed identifiers. - Use numeric codes for enum fields (e.g., numbering_mode=3 for lead3, string_format=0/1/2/3). Do not use string labels like 'lead3'.
...
Allowed identifiers:
characters insert, characters overwrite, characters remove, numbers, find and replace, convert case, date and time, remove text, set extension, regular expression, path, music, image, random numbers, spreadsheet Action field hints:
- tag_fields entries are objects: {value,label,type}. type is format|literal|variable. ... - file_part codes: 0 name-only, 1 name+extension, 2 extension-only.
- numbers: numbering_mode 0 single,1 lead1,2 lead2,3 lead3,4 lead4,...; string_format 0 original-text-number,1 number- text-original,...
- find and replace: search_string/replace_string are literal text; ...
...
Sample filename pattern hints:
- Sample count: 3
- Top extensions: jpg (2), ove (1)
- Separators seen: [space], .
- Names with digits: 0/3
- Date-like patterns: 0/3
Sample filenames:
- Oven glove.ove
- Attersee.JPG
- Sea star.jpg
User request:
Replace spaces with underscores

```
llama-cli
    -m <model.gguf>
    --json-schema '<schema with enum of allowed action identifiers>'
    --temp 0.2
    --ctx-size …
    --threads …
    -n <max tokens>
    -p "<full prompt>"   # or -f tempfile on Windows
```

```
"/path/to/Renamer.app/Contents/Resources/llm/bin/darwin-arm64/llama-cli" \
    -m "/path/to/Application
Support/.../mistralai_Ministral-3-3B-Instruct-2512-Q3_K_M.gguf" \
--log-disable \
    --no-conversation \
    --simple-io \
    --no-warmup \
    --reasoning-format none \
    --reasoning-budget 0 \
    --no-display-prompt \
    --no-show-timings \
    --temp 0.2 \
    --json-schema
'{"type":"object","properties":{...},"required":["type","renamerlets_json"
],...}' \     --ctx-size 6500 \
    --threads 4 \
    -n 768 \
    -p "<full buildPrompt text here>"
```

Important behaviours

1	No conversation	Not a chatbot
2	—json-schema	Steering the model towards actions
3	Low Temperature	Don’t reinvent the wheel
4	Stdout parsed as JSON	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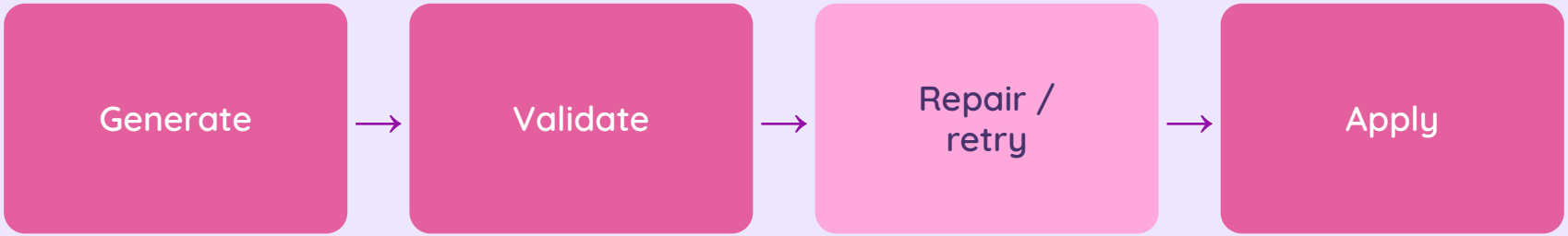
Archiving
Titleize
Insert Date
Change File
New Renam
Miscellaneous
Remove Spaces
Prepend Folder Name
Show automatically when selected
Find & Replace
Current Name
New Name
authorization.pdf
Filename will remain unc...
New Renamerlet
Suggested actions
1. Find & Replace
find: | replace: _ | apply: Name Only
find and replace
Note: You can edit actions after creation in the main UI.
Cancel
Back
Next

Validate, repair, fall back gracefully



"That's on me, you wanted JSON
and I gave you the script of the first Shrek movie"

Validate, Validate, Validate!!

```
if (!ALLOWED_IDENTIFIERS.has(a.identifier))
    return `Unknown action identifier: ${a.identifier}`;

  for (const field of REQUIRED_ACTION_FIELDS[a.identifier] ?? []) {
    if (!Object.hasOwn(a, field))
      return `Action ${a.identifier} is missing ${field}`;
  }
```

Validate, Validate, Validate!!

```
const validation = validateGeneratedRenamerletsPayload(p.renamerletsJSON);

  if (!validation.valid) {
    window.messaging.send("showGeneratedRenamerletError",
validation.error);
    return; // do not import
  }
```

Repair, Retry, Reuse

```
const repairPrompt = this.buildPrompt(
    prompt, sampleNames, iconName, mergedIntentPlan, locale, sourcePrompt,
    "Your previous output was malformed JSON. Return one valid JSON object
only, with no extra text.",   );

  parsed = await this.runModelPrompt(repairPrompt, this.responseSchema(),
{
    temperature: 0, // no improv
  });
```

Apply

```
importRenamerletsIntoStore(JSON.stringify(validation.parsed), {
    placement: "smart",
    commandLabel: i18next.t("generateRenamerlet"),
    selectFirstImported: true,
    originPrompt: p.sourcePrompt ?? "",
  });
  // → same engine + live preview users always had
```

Guardrails: trust is a product feature

Guardrail	Why it matters
Allowlisted actions + field validation	Model can't invent unsafe or unknown actions
Repair / retry passes	Absorb flaky JSON without blaming the user
Extension-change warnings in UI	High-blast-radius outcomes need a human pause
Preview before create	User sees the chain + example renames first
Prompt evaluation corpus / sweeps	Regressions caught offline, not just in support

Where it succeeds

1	Messy language → JSON	“replace spaces,” numbering, case, dates, music/EXIF tags map cleanly onto allowlisted actions
2	Authoring, not renaming	users who bounce off power features get a chain they can still inspect and edit by hand
3	Fail gracefully	schema, validate, preview, and “create without AI” keep bad JSON from becoming silent file damage
4	Local + private by design	

Where it stumbles

1	Ambiguity can bite	sequential vs random, insert vs number, translate vs transliterate
2	CPU Usage	
3	Model Download	~1.8 GB download is not super accessible
4	Not a chatbot	“just fix my files” wat

Introduce your AI feature to your users

Values on the setup screen

Runs locally

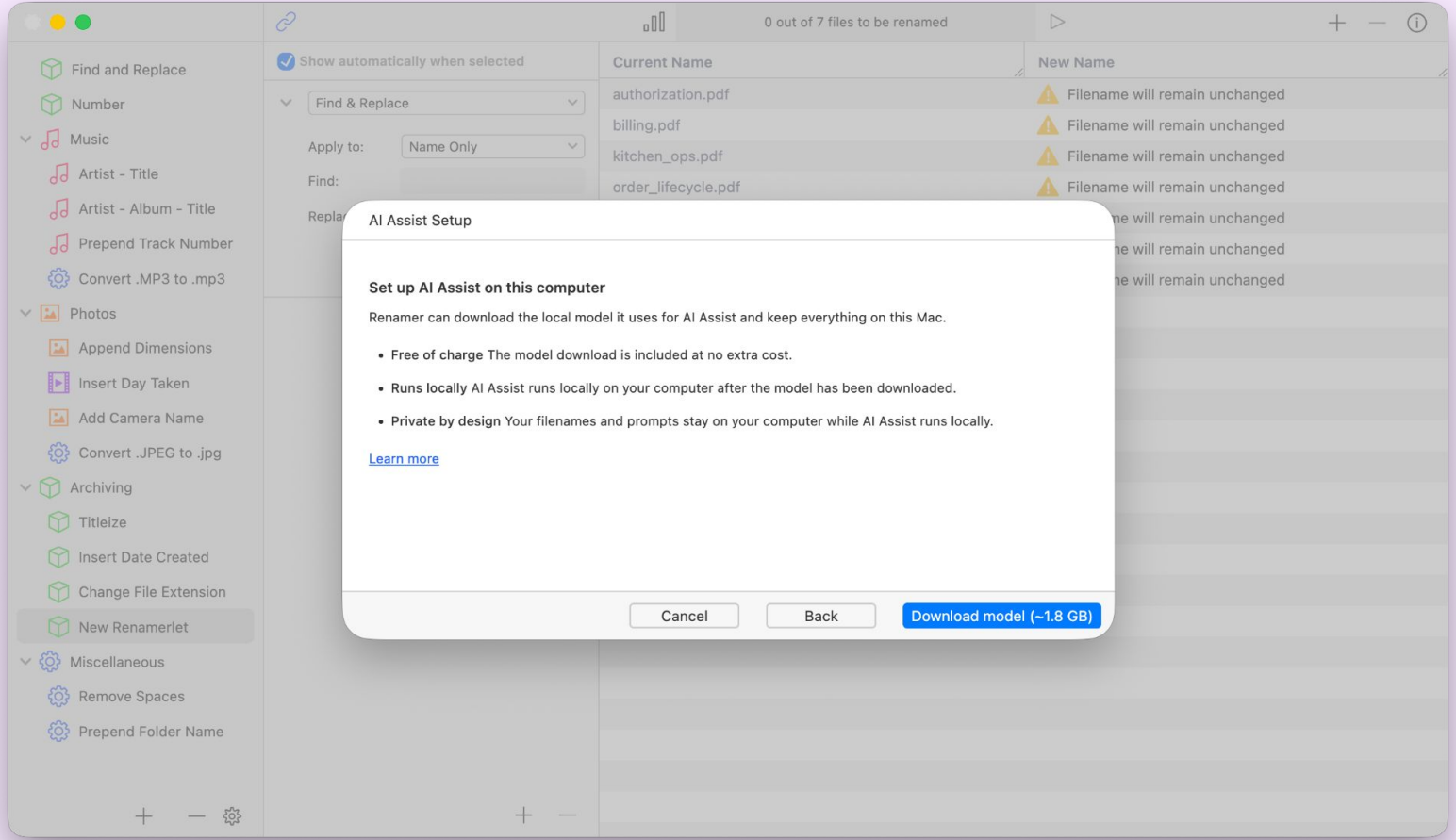
AI Assist runs on your computer after the model has downloaded.

Private by design

Your filenames and prompts stay on your computer.

Free of charge

The model download is included, no AI upsell tax.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Insert Date Created
Change File Extension
New Renamerlet
Miscellaneous
Remove Spaces
Prepend Folder Name
Show automatically when selected
Find & Replace
Apply to:
Name Only
Find:
Current Name
New Name
authorization.pdf
billing.pdf
kitchen_ops.pdf
order_lifecycle.pdf
Filename will remain unchanged
AI Assist Setup
Set up AI Assist on this computer
Renamer can download the local model it uses for AI Assist and keep everything on this Mac.
Free of charge The model download is included at no extra cost.
Runs locally AI Assist runs locally on your computer after the model has been downloaded.
Private by design Your filenames and prompts stay on your computer while AI Assist runs locally.
Learn more
Cancel
Back
Download model (~1.8 GB)

Ethically communicate with your values

1. **Say what leaves the device** and what doesn't, before the download button

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1. **Say what leaves the device** and what doesn't, before the download button
2. **Name the job, not the hype** "generate renamerlets," not "AI brain for your files"

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3. **Keep non-AI paths visible** trust shouldn't be hostage to the model
4. **Admit limits** preview, edit, try again: confidence without overreliance
5. **Align marketing, docs, and UI** so ethics isn't a blog post the product contradicts

Use an LLM when…

- The hard part is mapping messy language onto a domain you already own
- Output can be validated, previewed, and edited
- You can keep data on-device (or have a clear, consented cloud story)
- Users bounce off power features that easier authoring would unlock

Don't, when…

- A form, template, or rule already solves 80% of cases
- Wrong answers are expensive and hard to see
- You'd need the model to be the system of record
- You're adding AI to look modern, not to unblock a workflow

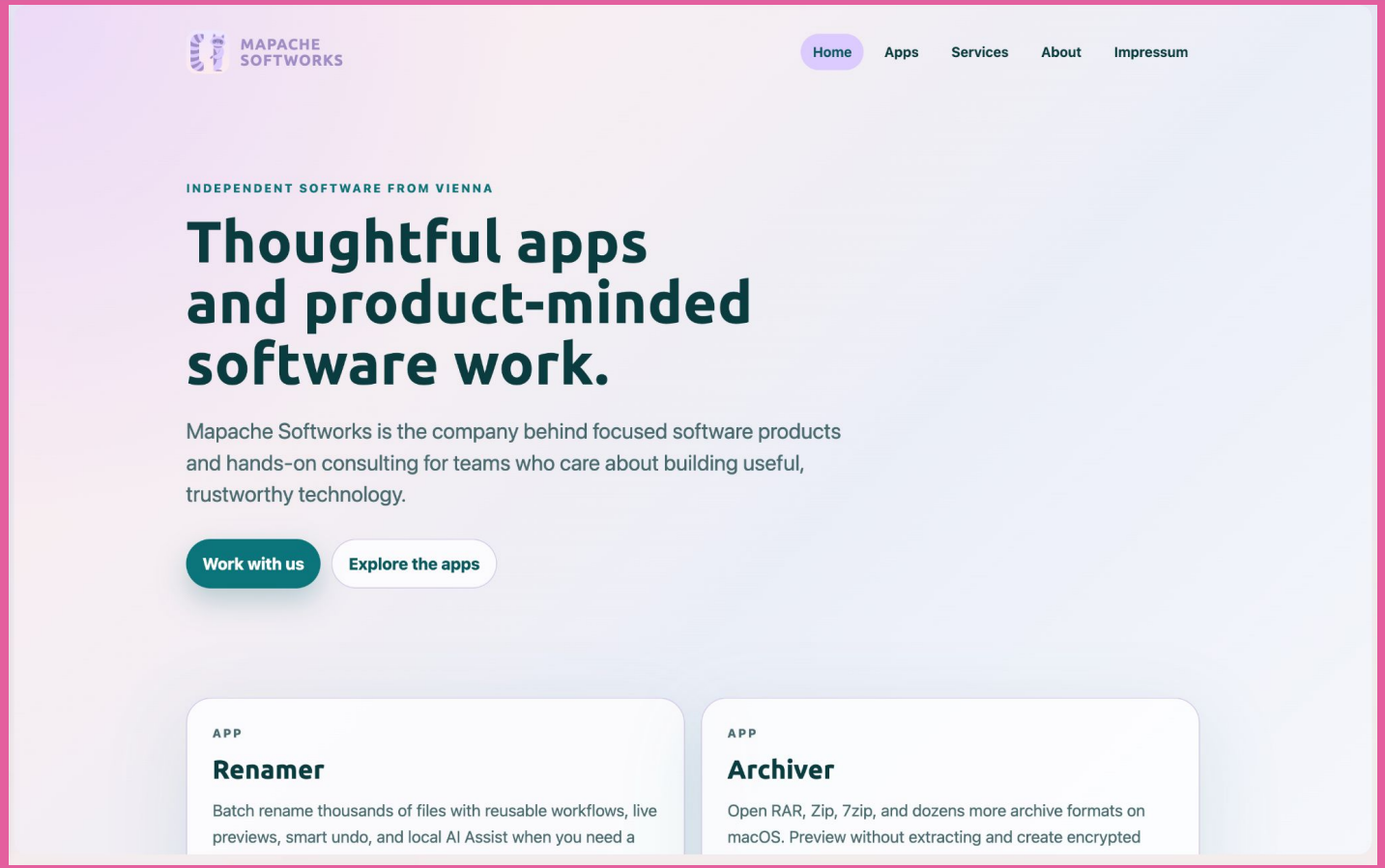
Seven lessons

1. Make the model a translator, not the engine
2. Shrink the output vocabulary until mistakes are obvious
3. Preview + edit is the real safety model
4. Privacy claims must match the architecture
5. Optional AI keeps the product honest
6. Invest in evaluation like unit tests for a parser
7. Hype fades, narrow usefulness remains

So does it work?

Don't just add AI to your product.
Add a smaller interface to the product you already trust.

We've adapted to a new industry, and we can help you!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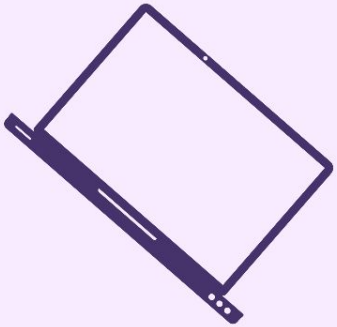
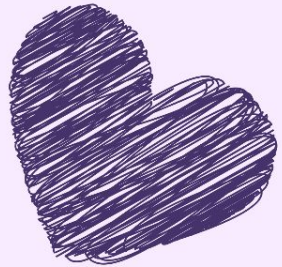


Thank you, Friends!

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