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MakeCargoFit setup guide

Install the app (PWA) · Work offline · Connect your own AI

A practical guide for your first setup and everyday use. Personal planning runs on your device. An OpenRouter account is needed only if you want Personal AI; a MakeCargoFit account or team server is not required.

01 Start here

Start at https://makecargofit.com/ and choose “Open free planner”, or open https://makecargofit.com/app/?lang=en directly. Use a regular browser window rather than private/incognito mode. Choose English in the language selector. On a small screen, the top-bar controls may show only a disk icon for My Space and a Wi-Fi icon for App.

The “Language / 语言” field stays visible in the top bar. Choose English, Русский, 简体中文, Español, Deutsch, Polski, Українська, Română or Lietuvių. For an English or Chinese share link, use the app address with ?lang=en or ?lang=zh-CN. When reopening the app, the language in the link takes priority; otherwise your latest choice is kept. Opening a complete workspace file restores the language saved in that file. You can change it again at any time.

For a handout to the loading crew, choose “Export → Loading instructions · PDF”. It provides stage diagrams, an ordered checklist and paper checkboxes. “Loading Plan · PDF” remains available as the detailed technical report. Paper checkmarks do not update loading status in the application.

In Export, choose Document language independently of the interface: English, Русский, Español, 简体中文, Deutsch, Polski, Українська, Română or Lietuvių. “Same as interface” is the default for older projects. The project remembers your choice in JSON and workspace files. Both the technical PDF and loading instructions use this language; cargo names and notes keep the text you entered. Choosing a language is free and does not recalculate or change the accepted layout.

Task	Connection needed
Calculate a load, use 3D, import CSV/Excel, export PDF/JSON	Works offline after the app is prepared.
Create, open and save a personal workspace	Local files; no team server needed.
Use Personal AI	Internet and your OpenRouter key.
Use team projects, staff accounts or approvals	A separately configured team server.

> Keep two things separate: installing/preparing the app saves the program; saving a workspace saves your projects and settings. You need your workspace file to move your work to another device.

> Moving from an older workers.dev address to makecargofit.com? Browser storage does not move automatically between these addresses. On the old address, save the complete workspace JSON through My Space; on the new address, choose My Space → Open workspace. Include a personal OpenRouter key only if you explicitly choose to save it in a password-encrypted backup.

02 Measurement units

Choose Measurement units in the planner top bar: centimeters/kilograms or inches/pounds. This is a project preference, independent of the interface and document languages. Inputs, 2D/3D measurements, warehouse views and PDFs follow this choice. Inches use decimal numbers. Volume is shown in ft³, support area in in², floor area in ft² and floor loading in lb/ft² (mass per area). Safety checks and calculation data remain in centimeters and kilograms. Switching units does not recalculate or move cargo.

Project JSON, complete workspace files and shared snapshots remember the selected units. Older files default to metric. CSV/XLSX columns without explicit units remain centimeters/kilograms. For imperial tables, use length_in, width_in, height_in, weight_lb, max_top_load_lb, cog_x_in, cog_y_in, cog_z_in and bearing_area_in2. Do not include both metric and imperial columns for the same field. CSV templates and CSV exports keep explicitly labeled metric columns for reliable exchange.

03 Transport catalog

Open the Transport tab to browse sea containers and road vehicles. Search by name or code, such as 45HC, or use the category buttons. The catalog includes 20′/45′ High Cube, 20′/40′/45′ reefers, mega and curtain trailers, and 7.5/12/18 t rigid trucks. “Custom transport” keeps the current dimensions for manual configuration. Choosing a preset changes only the form draft: click Apply parameters or Apply and recalculate loading to save it. Choose one fleet member to change only that unit.

Each new preset links to its source and states whether it is a specification example or a typical reference. Vehicle class denotes gross weight, not cargo payload. Verify the actual internal dimensions, rear door opening and payload. Reefer height follows the usable load line; temperature and airflow requirements are checked separately. Mega and curtain trailer presets check rear access; side/top access, open tops, flat racks and aircraft contours are not modeled by these rectangular presets.

The picker follows the project measurement units and works offline; opening an external source needs a connection. Saved custom dimensions and names are retained. The existing server scenario comparison still uses its bounded legacy candidate list; this catalog does not automatically choose the cheapest or smallest fleet.

04 Find transport

After entering cargo, choose Find transport. Select up to four catalog types and a maximum number of vehicles for new alternatives. The comparison runs locally in a Worker, checks real packing and can be stopped. It compares repeated units of one type with the current fleet; it does not search every possible mixed combination. Pins and loading policies remain in force. The current fleet may appear as a reference above your selected limit, but cannot be recommended or applied above that limit.

Choose fewer vehicles, or enter your own unit rates, currency and rate date to compare transport cost. Empty rates mean unknown cost, not zero. Changing currency clears the rates; the app does not convert exchange rates or fetch market prices. Additional services and taxes are excluded. “Best among tested” is a bounded heuristic result, not a proven global minimum. The report states when the search budget was reached; a single packing attempt may take longer than the target time, and Stop terminates it.

Review each candidate’s placed/unplaced cargo, vehicle count, fill, price and layout checks. Partial candidates are preview-only. Applying a complete eligible candidate creates a history version with both fleet and layout; Undo restores the previous plan. Applied rates and settings remain in project JSON and complete workspace files. They are omitted from public warehouse snapshots. New vehicle types require their own measured axle and floor-load settings; these are not copied from another vehicle. Advanced mixed-fleet search and managed tariffs remain future work.

A catalogue type’s rate is stored under its code; for your own transport it is stored per body profile (internal dimensions, door opening and payload): different bodies get different rates, identical bodies share one, and renaming or reordering vehicles does not change the rate. A previous shared “Your transport” rate from older files is kept but never applied to every body automatically — you can insert it for a specific body. If saved comparison settings do not fit the current limits (a removed type, more types or vehicles, a rate above the limit, another currency), the comparison window shows what needs review; the project, transport and accepted plan stay unchanged, and a rate above the limit is not used and not clipped.

05 Prepare MakeCargoFit for offline work

1. While online, open App (Wi-Fi icon) in the top bar.
2. Wait for Ready to work offline. If needed, choose Save app for offline use and wait for completion.
3. Save a workspace file through My Space before moving devices or clearing browser data.
4. Turn off your connection and reopen MakeCargoFit in the same browser or installed app. Open a project, calculate a load and try Export → Loading Plan · PDF.
5. Reconnect when you need AI or updates. If a resource is missing, reconnect and use Save app for offline use to repair the app copy.

> An installed icon alone does not prove offline readiness. Check Ready to work offline inside the actual window you will use. A prepared browser tab can work offline even without installation. Clearing site data can remove both the app copy and local recovery data.

In My Space, choose “Protect local storage” to ask the browser to protect this site’s local data from automatic eviction. Check the displayed result: the browser can grant, decline or not support the request. This does not replace your workspace JSON backup; manually clearing site data still removes local copies.

Reference: developer.mozilla.org

06 Install on a computer

Chrome: open MakeCargoFit, choose its address-bar install icon or the install command in the browser menu, and confirm.

Reference: Chrome: install a web app

Microsoft Edge: open the browser menu, find More tools → Apps, and choose the command to install this site as an app. Confirm the app name, then launch MakeCargoFit from your applications.

Reference: Microsoft Edge: install and manage apps

Safari on macOS Sonoma 14 or later: open MakeCargoFit, use File or Share → Add to Dock, then confirm. Open the resulting app from the Dock.

Reference: Safari on Mac: web apps in the Dock

> Safari’s installed web app can have separate website data from the browser. Save your workspace before installing, open that file in the installed app, and prepare offline resources there again. Apply the same check whenever a new window shows an empty workspace.

If your browser has no installation command, keep using the website. The offline feature depends on browser support and available device storage; installation is not required to calculate loads.

07 Install on Android, iPhone or iPad

Android / Chrome: open MakeCargoFit, use the browser’s Install or Add to Home screen command, and confirm.

Reference: Chrome for Android: install a web app

iPhone or iPad with Safari: open the site in Safari, open Share (possibly inside the page menu), choose Add to Home Screen, enable Open as Web App if offered, and tap Add.

Reference: Safari on iPhone: open a website as an app

> A link opened inside a messenger may not show installation controls. Open it in the full browser first. After launching the new icon, check your workspace and Ready to work offline; reopen your saved file if needed. Keep a copy in Files or another folder you control.

08 Create your OpenRouter key

1. Open https://openrouter.ai and sign in or create your own account. MakeCargoFit does not create this account for you.

2. If your chosen model requires paid credit, add credit through OpenRouter's account billing controls. Check the current terms and prices there.
3. Open https://openrouter.ai/settings/keys and create an ordinary API key for model requests, not an administrative/management key.
4. Give it a recognizable name, such as MakeCargoFit, and set a provider-side credit limit appropriate for your own usage.
5. Copy the key into a private location or directly into MakeCargoFit's key field. Never put it in a cargo note, shared project, screenshot or public message.

Reference: OpenRouter: API keys and credit limits

> OpenRouter charges your account for model requests. The key's OpenRouter credit limit and MakeCargoFit's per-request estimate limit are different controls. Revoking a key in OpenRouter also prevents old saved copies of that key from making new requests.

09 Connect Personal AI

1. In the planner, open Personal AI. Choose this button rather than AI dialog, which belongs to the team-server workflow.
2. Expand Settings if needed. Paste your key into Personal OpenRouter key and choose Connect key.
3. Wait for Your key is connected. This connection check validates the key and does not invoke a model.
4. Choose an OpenRouter model. Only models compatible with this feature appear; availability and prices can change. Use Refresh models and prices when prompted.
5. Review Limit per request, USD and Maximum response tokens. Start with the defaults and choose a model whose estimate fits your limit.

Setting	Initial value / meaning
Limit per request, USD	0.05. Requests with a higher estimate are blocked.
Maximum response tokens	2048. This is a token limit, not a word count.
Displayed model prices	Input / output price per million tokens, in USD.
OpenRouter key credit limit	Set in OpenRouter; limits provider-side key spending.

> The app estimate is a conservative check for one request, not a guarantee of your final account bill. You do not need Personal AI for ordinary calculation, manual loading or PDF export.

10 Ask questions and review proposed changes

1. Enter or import cargo and choose Calculate loading so that the plan is current.

2. Select the cargo unit on the drawing, or select a cargo row when discussing the whole row. Check the selected context in the Personal AI panel.
3. Write one clear question or change, with actual dimensions or coordinates if relevant. For example: “Why is this cargo here?” or “Find a layout with a lower centre of gravity.”
4. Read the estimate and data notice. Sending discloses relevant project data, the selection and recent conversation to OpenRouter and the selected model provider.
5. Choose Send with your key once. One send starts one model request; proposals are checked locally.
6. For a proposal, choose Compare. Inspect its positions, quantities and conditions. Choose Apply changes only when you accept it; otherwise use Cancel proposal or continue the conversation.
7. Save your workspace after accepted changes or useful conversation. Applied changes become a new history version; undo changes the plan but does not refund a provider request.

> An answer or a preview does not change the accepted load. If you edit the plan while a proposal is pending, it may become stale: send a clarification against the current plan. Stop, a timeout or malformed response can still incur provider cost. Check OpenRouter activity before sending again; the app does not automatically retry. AI helps prepare a plan; transport acceptance, real access for loading equipment and cargo securing still require human review.

11 Save your projects, settings and optional key

1. Open My Space (disk icon) → Save workspace, or Save as for a separate copy.
2. Choose a name ending in .json, such as my-workspace.makecargofit.json. This file contains all personal projects, the cargo catalogue, layout history, interface and AI settings, and saved personal conversations.
3. To include the API key, enable Encrypt file with a password, then explicitly select Include my OpenRouter key.
4. Enter Workspace password and Repeat password. Keep the password separately from the file; forgotten passwords cannot be reset.
5. Choose Save file. Depending on browser support, select a destination or complete the downloaded file save. Find the file on your computer or phone.
6. Watch the status: an up-to-date local recovery copy does not mean your portable file includes the latest changes. Save the file again before moving it elsewhere.

Ctrl+S saves; Ctrl+Shift+S opens Save as. Use Command instead of Ctrl on macOS. Where direct file access is supported and permission is granted, later saves can update the selected file. Other browsers download a new copy; use the newest completed file.

> For sharing one loading with colleagues, use Export → Project · JSON or Loading Plan · PDF. These exports do not include your AI key or other projects. A full workspace is your private data file; only explicit encryption allows it to include the key.

12 Reopen, move, lock and recover

1. On the target device, open MakeCargoFit → My Space → Open workspace and choose the complete workspace file.
2. If protected, enter its password. Projects keep their identities; reopening the same workspace continues the existing work instead of importing duplicate projects.
3. For a protected workspace, choose Lock workspace when finished on the current device. The app saves an encrypted recovery copy and reloads to the password prompt.
4. If the browser finds an encrypted recovery copy after restart, enter its password to resume. Ordinary local recovery is restored automatically.
5. If a recovery copy cannot be opened, keep the original using Download original recovery copy when available, then open a known-good file. Start a new local session replaces that recovery only after your confirmation.

> There is one current recovery copy per browser/site. Opening another workspace replaces it. Recovery is not cloud backup and does not move to another browser or domain. Save a file before switching. Disconnect and remove key clears the live key, not older downloaded encrypted files; revoke the key in OpenRouter if those copies must stop working.

13 Apply app updates

1. Reconnect to the internet. In App, choose Check for updates.
2. When Update app appears, save the latest workspace file first.
3. Close other MakeCargoFit tabs and windows, then choose Update app in the remaining window. The app reloads only after the update is ready and your workspace is saved.
4. After reopening, check your project and offline readiness before disconnecting.

> Updates change the program, not the contents of an older workspace file. The app does not automatically resend interrupted AI requests.

> If link management asks you to update, close the dialog, save the complete JSON through My Space, close other app windows, and apply the update through App. A rejected action is not retried automatically. An already open v0.19 window may show only its old generic error: save your JSON and update manually. Do not clear site data to update; local calculations and export remain available.

14 If something does not work

Symptom	What to do
No install button	Use the full supported browser and check its menu. You can continue in a prepared browser tab.

Symptom	What to do
Offline version is not ready	Reconnect, open App and prepare the offline copy. Check free storage; private mode or clearing site data can remove local copies.
Installed app shows different data	Open the saved workspace in that app window and prepare it for offline use there.
Key rejected / 401 or 403	Check that the key was copied correctly, is an ordinary active key and has access to the model. Reconnect with the correct key.
Insufficient credit / 402	Check the OpenRouter balance and the key's credit limit. MakeCargoFit cannot add credit for you.
Too many requests / 429	Wait, check OpenRouter activity and retry manually only when appropriate.
Estimate exceeds your limit	Choose a cheaper compatible model or a smaller output limit; review costs before deciding to raise your limit.
Send is disabled	Connect a key, load current model prices, choose a model, calculate a current plan and enter a message.
Timeout, cancelled request or invalid answer	Your accepted plan is preserved. Check provider activity/costs before a manual retry.
Wrong workspace password	Use the password for that particular file. Existing data is preserved; the password cannot be recovered by MakeCargoFit.
Another tab or failed recovery write	Save your current work as a separate file, close other tabs and reopen the intended workspace. Do not assume the recovery copy is current.
File opens as the wrong kind of JSON	Open complete workspaces through My Space. Use My Projects → Import JSON for a single Project · JSON export.

15 Before you finish

- The app says Ready to work offline in the actual browser/app window you will use.
- Your latest workspace file is in a folder you can find, and you have a separate backup when needed.
- If that file includes the key, it is encrypted and you know its password.
- OpenRouter has your chosen credit limit; AI works only while online.
- You checked the selected model, request estimate and any proposed plan before applying changes.
- You can reopen the workspace on the intended device. Installing the app has not replaced saving your work.

16 Optional Cloud subscription, team and AI budget

All previously free local features remain free without a MakeCargoFit account or subscription: local planning, PWA, JSON/PDF files, local history and Personal AI with your own OpenRouter key. Existing file and calculation limits and optional cloud quotas still apply. Cloud is optional. If the site owner has not configured the cloud service, its panel explains this and offers no account or payment.

When Cloud is available, register with your email and a password of at least 12 characters, confirm your email and sign in. Use Forgot password to request a recovery link. Confirmation, recovery and invitation links contain one-use credentials in the URL fragment; open the intended link and do not forward confirmation or recovery links. Your account password and sign-in session are never included in a portable workspace.

The comparison shows Free, Pro, Team and Business, with EUR/USD and monthly/yearly selectors. Default catalogue prices before VAT: Pro 19 per month or 190 per year for one owner/editor and up to 3 viewers; Team 18 per editor monthly or 180 per editor yearly, with 2–100 editors and currently up to 100 free viewers. Owners occupy editor seats. Business starts at EUR 290 / USD 299 per site per month and is marked coming soon while its conditions are unresolved. API, widget and future features are not enabled by buying a plan. This release supports Stripe TEST only; do not make real payments.

Each paid editor includes a catalogue-defined monthly AI allowance, initially USD 3 of actual provider spending. It remains in USD when billing is in EUR. Annual billing grants only the current monthly slice, never the entire yearly allowance up front. Unused included budget expires at the end of its monthly slice and does not roll over. Opening Checkout, inviting a member or scheduling a future quantity does not grant paid credit.

Purchased AI budget is separate from the included allowance: unused purchased budget persists and can still be spent on cloud AI using the current local project after the subscription ends. Internet access is required. Personal OpenRouter uses your own key and provider balance separately. Before Send, review the authorized maximum; an uncertain provider result can retain that reservation. Check the request status before creating another paid request. AI replies are advice and never automatically approve or change the loading plan.

Save to cloud transfers projects, cargo templates and project layout history to the selected organization. Personal AI chats, device preferences, your OpenRouter key and account credentials stay out of the shared copy. Loading a cloud copy replaces local project data after confirmation while retaining this device's key and preferences. First download a full local workspace if you need an independent backup, including private conversations.

Automatic synchronization starts only after you explicitly enable it for the saved or loaded cloud copy. It exchanges shared project changes in the background while online and entitled to Cloud. Version checks prevent silent overwrites: if local and remote versions both changed, synchronization pauses. Save a local JSON, inspect the cloud copy and choose which version to keep; there is no automatic merge. Opening another workspace or losing the subscription pauses synchronization.

An owner can invite a confirmed email address as editor or viewer. Copy and send the invitation link to that person; they must sign in with the intended verified email and accept it. Editors use paid seats; viewers do not. Pending editor invitations reserve capacity. Owners can revoke invitations, remove

members or change roles within paid capacity; the last owner cannot be removed. Each organization keeps its own shared data and permissions.

Cloud history offers the latest retained snapshots for JSON download or local restoration, with up to 50 cloud snapshots. A downloaded shared JSON excludes personal keys and chats. Restoring a snapshot replaces local project data, so save a local backup first; uploading that restored state creates a new cloud version rather than rewriting past history. After the subscription ends, existing data remains readable/exportable within Free limits; new cloud writes and automatic synchronization require a paid subscription.

On monthly plans, paid-seat increases and decreases apply at the next renewal. Annual Team can add editors after payment of a prorated charge for the remaining term: enter the quantity, calculate the charge, review its exact tax-inclusive amount and expiry, then confirm separately. A preview neither charges nor adds seats. If Stripe requires card authentication, open the invoice and complete payment. Seats appear only after the server verifies the paid invoice; a declined card or expired unpaid update adds no seats. Annual decreases still apply at renewal. An active schedule, plan transition, billing dispute or canceled renewal can block a new increase. Added seats contribute an AI slice prorated to the remainder of the current allowance month, then full future monthly slices. Adding seats does not multiply one editor's personal monthly cap.

Public service limits: shared workspace up to 4 MiB, up to 50 retained cloud copies; viewer and sharing-link limits depend on the catalogue plan. Daily transfer allowances reset at 00:00 UTC: paid organizations receive 100 MiB writes and 300 MiB reads per paid seat; Free receives 50 MiB reads. An owner can request one bounded cloud export daily even if normal reads are exhausted. Limits do not delete local projects or budget. Continue locally or retry after reset.

Cloud hosting and real payments must be configured and checked by the site owner separately. Stripe test payments do not purchase production budget, and paid server AI/key provisioning is disabled in test mode. This manual does not mean that a particular public site already has cloud accounts, paid plans or provider billing connected.

Local planning, PDF and crew-language export remain free offline. A configured cloud service can additionally issue a signed offline entitlement token, initially valid for at most 14 days and never beyond its paid access boundary. Reconnect to refresh it. Expired or modified tokens cannot enable paid rights. Offline rights do not create cloud connectivity and cannot enable features marked coming soon.

Checkout collects the billing address and, where applicable, a business tax/VAT ID; Stripe Tax adds applicable taxes to the price excluding VAT. Review the total and TEST label. Changing plans is an explicit end-of-period process: schedule the transition, retain paid access, then confirm a new Checkout after the old period ends. There is no automatic second purchase. Adding annual Team seats is a separate explicitly confirmed charge. Business terms remain unresolved.

To leave an active transition, choose Cancel plan change, read the consequences and confirm. The service checks Stripe and can expire only an open unpaid Checkout; this action cannot cancel a completed or processing payment. If another operation is still running, wait for the displayed interval and check again. The paid subscription, projects and purchased AI budget remain. If renewal was already canceled, abandoning the transition does not resume it: open Stripe Portal and choose renewal when

needed. After a failed first payment for the new subscription, check its expiry, retry confirmation or abandon the transition. If a response is lost or the page reloads, repeat the existing action; no new purchase starts automatically.

> For new annual invoices, a partial refund is allocated first across the free balance of the current month and future AI slices. Closed past months receive no new withholding. For example, with a yearly USD 36 AI allowance and USD 18 spent over six months, a 50% refund withholds the remaining USD 18: purchased USD 4 remains without debt. A 25% refund leaves USD 1.50 in each of the six remaining months. Debt can arise when withholding exceeds unused budget eligible for reversal: a full refund after six fully spent months creates USD 18 debt, turning USD 4 into a balance of minus USD 14. Uncertain cost of running AI work is not automatically debited; the reservation is reconciled after actual usage is verified or released. Annual invoices already recorded before this update retain their previous policy without retroactive recalculation. Monthly subscriptions and purchased AI packs keep their previous refund rules. Debt does not disappear at year end or renewal; local planning, PDF and files remain free. Expired unused monthly slices cannot cover a refund: a late full refund can create debt even when AI was not used in closed months.

> If the seat payment requires the service owner's review, seats and AI budget are not granted automatically. An unexpected invoice line, changed amount or incomplete payment data can cause this state. Do not create another payment to bypass it: refresh the status and give the service owner any available invoice for reconciliation. Canonical payment evidence is retained; operator attachment and closing the review do not themselves refund money or add seats. A related payment discovered later can reopen review.

17 Documents, plan links and AI import

In Export, choose Document language and, optionally, Second instruction language. The primary language is independent of the interface; the second adds labels beneath key headings and terms in the loading instructions. Full explanatory text remains in the primary language. The choice is saved in the project and travels through JSON or workspace files without changing the accepted layout. Bilingual instructions and the standard PDF are free. Once the app is prepared, documents can be generated offline; Chinese labels use embedded fonts.

With Pro, open Export → Logo and company details · Pro and save the company profile: name, address, tax number, contact, color and PDF footer. The logo must be PNG, JPEG or WebP, up to 256 KB and 2048 × 2048 pixels; SVG is rejected. The image is checked and converted to PNG. The profile is stored in your workspace, included in its plain or encrypted file and in an explicitly saved cloud copy. Branding is added with a valid Pro entitlement, including a suitable offline token. Free PDFs and instructions retain their standard appearance; safety warnings are never hidden.

Share an immutable accepted plan from Free, Pro or Team. A verified Free account includes up to 3 active warehouse links across its organizations, for up to 30 days each. Pro and Team retain their included limits. Notes and branding are included only if explicitly selected; safety rules and warnings are always included. Published snapshots exclude personal AI chats, keys, other projects, workspace history and the shared catalog. Editing your project never changes a published snapshot.

Copy the new URL immediately: the database stores only the capability token hash, so a lost URL cannot be recovered from the list. The recipient needs no account and can rotate the default 3D view, choose a transport and loading step, switch to 2D and download the instruction PDF. An optional link password is separate from a local file password; send it separately. Opening a link needs internet. Revocation or expiry blocks new access but cannot remove downloaded PDFs or copies.

Recognize a PDF or photo first reads the document on your device. Supported inputs include text PDFs, scanned PDFs, PNG/JPEG/WebP, TXT, CSV and XLSX, including spreadsheets with unusual headings. Text is extracted locally; scanned pages and photos are prepared as images for a vision model. For PDFs with tables embedded in images alongside text, enable Recognize PDF pages as scans before choosing the file. Select the file again after changing this checkbox; the 6-image limit applies in this mode. The checkbox itself does not send an AI request. Current limits are a 10 MB file, 20 PDF pages, 6 images and 100,000 text characters per import; split larger documents. Choose your own OpenRouter or the Pro cloud AI allowance. The personal path has no app fee, but your provider account pays the cost; the cloud path uses the existing allowance and is disabled in Stripe TEST. AI requires internet. Review the estimate first, then separately confirm sending; there are no automatic paid retries.

The import result is a draft for review. Check every field, dimensions, quantity, weight per unit, orientation and stackability; unknown weight stays unknown (null), rather than becoming zero. Sources include page and quotation: text quotations are checked automatically, while scan quotations need checking against the image. Once confirmed, applying the result creates one undoable history entry. You may save quotations in cargo notes. If a cloud request is unconfirmed, use Check import status: it does not send the request again. Our service does not store the original file, but extracted fields and quotations may remain in the cloud job result and in selected cargo notes. Canceling does not guarantee that the provider stops charging; check its activity before sending again.

18 Warehouse links from your local JSON · v0.20.2

Use a configured cloud service and a verified Free account. You do not have to save your full workspace to the cloud. Choose Share by link, or open the cloud panel and publish a local plan. Three links means three simultaneously active Free snapshots per account, not three lifetime publications. Revoke an old link or let it expire to free a slot.

1. Calculate and save the accepted layout in your offline app first.
2. In the sharing dialog, choose Open local JSON for link and select a project JSON or portable workspace file.
3. If the file is encrypted, enter its file password. Decryption happens on this device; the password is not sent to the server or reused as a link password.
4. Review the active project, document language, expiry and optional notes/branding. Only that current validated snapshot will be published; the local planner is not replaced.
5. Optionally set an 8–128 character link password, create the link, then copy the URL and send its password separately.

The viewer contains only the loading visualization, steps, safety information and instruction export. It has no cargo editor, account controls, AI, catalog or payment tools. The public snapshot is not added to the recipient's workspace and is not stored for offline viewing.

> Publication credits are separate from AI budget: the default is 1 unit for an additional 30-day snapshot, only after explicit opt-in. Credit-pack prices are not approved, so purchases are not offered by default. Do not expect an automatic charge or top-up. Existing local 3D, PDF and JSON stay free.

> Each public link has its own technical transfer limit: initially 64 MiB of snapshots per UTC day, resetting at 00:00 UTC. Views do not charge money or AI budget. Exhausting one link does not disable other links or prevent its author from listing and revoking it. Request throttling uses the IP and link pair; recipients behind a shared IP can share that limit. Retry later or contact the sender if temporarily limited; buying publication credits does not remove a daily limit.

19 Versioned Team plans, catalog and approval · v0.20

1. Sign in, select your organization and open Cloud team and warehouse. Owners/editors need the appropriate paid rights for new shared changes; viewers can read saved work.
2. In Shared catalog, create a box/cylinder template or save a local cargo item. Add selected quantities to your local project. Ready pallet composites are not catalog templates.
3. Calculate the local layout and Publish shared version. Publication saves a sanitized immutable snapshot rather than the full workspace or personal chats/keys.
4. Select a revision, inspect its views and every safety warning, then explicitly acknowledge and approve that exact version. New edits require a new approval.
5. Add a comment to the selected version or an actual placed unit. Open a saved version locally only after reviewing the confirmation; changes are not silently sent back to the team.

Catalog edits create versions and never rewrite old plans. A changed name/dimensions/shape creates a distinct variant. The project remembers its source entry/version, including boxes placed into pallets; later local edits do not claim to match the template exactly. Conflicting publication or catalog edits stop with a refresh request instead of silently merging. Revisions and comments load in bounded pages; use the earlier-record controls to reach older history. Comments always belong to the selected revision.

> Approval records the exact server digest, account and time. It does not certify real mass, restraint, vehicle legality or safe loading. Local planning and all warnings remain free. Read already-saved plans after paid access expires; new paid mutations are disabled.

20 Business warehouse execution and confirmation · v0.20.2

> Business purchasing is still closed; these implemented workflows require an owner-configured TEST service and the corresponding organization rights. A free loader role can record loading but cannot edit plans, open drafts/full workspaces/catalogs, manage money or use AI.

1. An owner/editor approves the exact plan and starts its loading run. Only one run may be active per project.
2. On the tablet, open Warehouse loading, select the approved run and unit, or scan its QR label. Scanning selects a unit; confirm the action separately. Choose 3D to rotate the plan if helpful.
3. Follow the sequence and support rules. Record Loaded, Problem or Skipped, with a reason for a discrepancy. A photo is re-encoded to JPEG without EXIF/geolocation and bounded to 2 MiB.
4. When offline, check the separately labelled pending-device counter. Events remain durably queued for this account, organization, run and approved version and send in order after reconnecting. A conflict stays queued; save a queue backup before clearing site data.
5. Before closing, ensure all devices have sent their queues. An owner/editor enters the responsible name, a discrepancy/cancellation reason where required, and explicitly acknowledges the outcome. This is an application confirmation, not a qualified electronic signature.
6. Choose the document language independently of the interface and download Loading confirmation PDF while online. It contains the server journal at its stated sequence, actual loaded/total counts, problems, available photos and acknowledgment; unsent device marks are not included.

The owner sets private photo storage and retention, initially 180 days. Shortening retention affects saved photos; increasing it cannot restore deleted ones. Confirmed erasure removes a sole-member organization's nonfinancial records and queues photo deletion. Evidence in an organization with remaining members, including typed names and notes, remains its records after the account reference is anonymized. Downloaded PDF copies cannot be remotely erased. Approved snapshots and pending events/photos are cached in this browser for offline work and may remain after sign-out. Use a trusted device/browser profile; this cache is not an encrypted portable backup.

Business owners can filter and export visible organization audit entries as CSV. The log contains action metadata and actors, without passwords, private AI chats, card data or provider credentials.

Long notes and photo metadata load in separate pages. Wait for a complete refresh before making new marks or exporting a PDF. If the server confirmed a start or closure but the following read failed, the app keeps the confirmed outcome and asks you to refresh; it does not send the action again. New marks and PDF export wait for the complete refresh. Do not clear the queue or site data to repair this error.

An otherwise valid event is accepted with a warning if its device time is over five minutes ahead of the server now or over five minutes before the run started. This is the initial configurable tolerance; a delayed offline upload alone does not mean its clock was wrong. The original device time and server receipt time remain separate; the server event sequence defines order. Check the device clock, but do not delete the pending queue or manually rewrite recorded history.

The confirmation PDF distinguishes full loading, completion with discrepancies, and cancellation. Units not loaded are explicitly counted with the reason. Authors use a generic warehouse-member or deleted-member label instead of an Auth UUID; the deliberately typed responsible name remains on that confirmation. An owner can explicitly cancel an old active run with a reason and acknowledgment even after Business access expires. This does not permit a new run or further paid operations.

A loader receives only approved loading contexts, without subscription, editor-seat, AI-budget or payment information. All approved-run history in its own organization remains accessible. Viewers and loaders share the plan's existing free-member limit; current invitations reserve places. Switching between viewer and loader does not consume an extra place. Existing members over the limit are retained, but additional places are unavailable until capacity is freed. Business purchases and additional publication-credit packs remain disabled.

21 Axles and vehicle measurements · v0.19

Axle and axle-group figures, reserve against entered limits and every warning are free. Pro adds a search for a better axle-load layout; ordinary packing, the existing centering tool and safety information remain free. Local paid tools can use a valid verified offline entitlement token. The site owner must separately configure and test the cloud service and Stripe TEST.

1. In the vehicle tab, open the axle and empty-vehicle model and enable axle calculations for the chosen vehicle. Select a semitrailer, rigid truck or trailer with two supports.
2. Enter the actual support positions, empty-vehicle mass and its longitudinal center of gravity. X starts at the closed end of the cargo space; enter a negative coordinate for a position in front of it. Initial support positions illustrate geometry only.
3. Enter support and gross-mass limits from your vehicle documents. The app does not automatically assign country-specific legal limits or an empty-vehicle mass. An empty field means unknown.
4. For a semitrailer, optionally add the tractor: wheelbase, fifth-wheel position from the front axle, measured unladen axle loads and separate limits. Do not count the semitrailer mass again as unladen tractor mass.
5. Save the settings. Changing only axle measurements keeps accepted coordinates and pins; changing dimensions, doors or other packing inputs may require recalculation. Calculate a current layout and open the load checks for the selected vehicle.
6. With Pro, request an axle-layout search and compare current and proposed figures. A preview changes nothing. Apply a chosen candidate separately or close it; an improvement may not be found. Applying creates an undoable history entry. Pins, height, orientations and supports are preserved.

> An unknown placed-package mass, empty-vehicle mass or support position is never replaced with zero: the full axle estimate remains unavailable. A missing limit cannot produce a confirmed pass. Each axle group shows its combined load, not individual axle loads. Vehicle dynamics, restraint and lateral load distribution are not modeled. Check the result on scales and against vehicle documents; it does not certify legal compliance.

The technical PDF and loading instructions include configured axle models, entered measurements and limits, calculated loads and warnings. Export → Document language controls these pages independently of the interface. Axle settings travel through project JSON and complete workspace files; older projects without an axle model keep it absent.

When you increase the number of vehicles on the transport tab or through an AI proposal, new vehicles repeat the body of the last vehicle but do not receive its axle model or container balance data: those measurements belong to one specific vehicle. Enter them for each new vehicle; until then the axle and balance checks are not performed for it. Saved data of existing vehicles does not change.

22 Build pallets and hand the diagrams to the warehouse · v0.20.1

Single-SKU pallets and standard pallet diagrams/label PDFs are free. Mixed-SKU pallets require Pro. Calculation checks declared rotations, support, stacking, top-load limits, gap, height and mass, with no overhang. A pallet cannot contain another pallet.

In v0.20.1, new pallets prefer the available deck and then lower layers; heavier boxes take priority among allowed placement choices. The contents of one pallet move together in X/Y toward the center as far as the bounds allow: known masses use their moments, otherwise the occupied footprint is centered. With known masses, the app can also swap equal-size boxes within the same layer to move the center of gravity closer to the center; each candidate is rechecked for geometry, support and top-load limits. Orientations, heights and original instances are preserved.

1. Enter or import ordinary rectangular boxes, then open Pallets above the scene. Select the source rows. Cylinders, existing pallets and unselected cargo stay unchanged. Unpin selected cargo before palletizing it.
2. Choose EUR 120 × 80, 120 × 100, US 48 × 40 or custom dimensions. Check deck height, actual empty-pallet mass, maximum overall height, gross-mass limit and gap. A declared tare is required for calculation. EUR dimensions and approximately 25 kg are an editable EPAL 1 reference, not a measurement or strength certificate for your pallet; the other limits are editable planning inputs.
3. In Free, each SKU is palletized separately. With Pro, enable mixed pallets: heavier boxes are considered first subject to bottom-layer rules, and different unloading groups remain on separate pallets.
4. Calculate the pallets. Review source-unit, pallet and unplaced counts, top/side views, contents and mass of each pallet. Floor-only means the bottom layer on its deck. A partially fitting list cannot be applied; change the settings and calculate again.
5. Apply pallets separately. Only this action replaces selected boxes with composite physical pallets, creating one undoable history entry. Each pallet has quantity 1. Return to the version before palletizing to build a different composition. A project supports up to 2500 original packages, including boxes inside pallets.
6. Calculate loading to place the pallets in the container or vehicle. Finished pallets stay on the transport floor, turn horizontally only and are not stacked on one another. Verify deck, feet, packaging and restraint strength separately; the app does not invent the feet contact area.
7. Choose the document language and Export → Pallet labels · PDF. Top/side diagrams, pallet number, full contents and mass map each original box ID and instance to its pallet, vehicle and loading step. Before vehicle placement, the location is explicitly unassigned. Composition pages are also appended to the technical PDF and loading instructions; long names and notes continue on later pages.

Reference: EPAL: Euro pallet dimensions and approximate tare

> Mass includes the tare and all boxes. If a box mass is unknown, no full gross mass or center of gravity is invented: the known subtotal still counts against vehicle payload. This does not prove that the unknown remainder fits a limit. Full axle reactions for that load remain unconfirmed. Composition, original instance numbers and coordinates travel in JSON and workspace files; save the file after applying.

Once the app is prepared, these calculations and PDFs run locally without AI. Pro branding requires its own valid entitlement; standard documents and safety warnings remain available to everyone. Diagrams describe checked geometry, not a forklift trajectory or pallet certification.

> The preview and PDF show the calculated X/Y/Z center of gravity and its offset from the deck center. An unknown tare or box mass leaves the center of gravity unconfirmed. Zero offset does not confirm stability during forklift movement: check actual supports, securing, friction and handling conditions separately. No acceptable-offset threshold is assigned automatically.

To check floor pressure, open Pallet contents and enter the measured Actual support area in cm^2: the total floor contact of the feet or runners, greater than zero and no greater than the rectangular pallet footprint. The deck area is not substituted for contact. Empty means unknown support area. Entry is available in Free and survives project JSON, workspace files and shared snapshots. This field does not edit the pallet composition or geometry.

Imported saved pallets are not rebuilt: their contents, coordinates and previous numbering are preserved. Review an older diagram before use. The new heuristic applies when calculating new pallets from source cargo, not by silently changing an old file.

23 Large loads: up to 2500 units

The project limit is 2500 original units, including pallet contents, and 500 cargo rows. Enter repeated boxes as one row with the required quantity. CSV/XLSX row limits and file-size limits remain separate. Automatic planning above 500 units currently requires a complete layout of one identical box type in Compact mode; unsupported constraints or insufficient transport produce an explicit error without replacing your accepted plan. Large manually placed plans currently support boxes without pallets.

Large 3D views use batched drawing while retaining each individual box and its selection. Labels are limited to a readable sample and the selected unit. Playback advances in groups; the slider and previous/next controls still reach individual units.

For more than 500 placed units, loading instructions use compact stages and rows. A row lists an inclusive range of steps and instances, per-unit dimensions and mass, and the first and last coordinates. Load every unit in step order and tick the row only after all its units are loaded. Full notes and all unplaced units remain in the document. Save a complete workspace file after changes; public sharing still requires the configured cloud and its existing byte/traffic quotas.

24 Two-factor protection for your cloud account · free

You can enable a TOTP second factor for your cloud account free of charge, using codes from an authenticator app. No subscription is required. Setup and cloud sign-in need a connection; local projects, JSON and a prepared PWA continue to work separately from cloud sign-in.

1. Sign in to your cloud account and open the two-factor protection section.
2. Start adding an authenticator and give the device a recognizable name so you can distinguish the primary factor from a backup.
3. Scan the QR code with your authenticator app. If scanning is unavailable, enter the displayed setup secret manually in that app.
4. Enter the current six-digit code and confirm setup. The new factor is not active until verification succeeds.
5. At your next sign-in, enter your email and password first, then select a configured factor and enter its current code. Cloud data and actions remain unavailable until the second factor is verified.

> The QR code and setup secret are shown only in the current setup window. Do not put them in a project, shared workspace, conversation or public link. They are not included in workspace JSON; after closing setup, the secret cannot be restored from an application file.

While your primary authenticator is available, add a second independent factor on a backup device and verify it with its own code. Keep the backup device separately. If you lose the primary device, you can select another verified factor on the sign-in screen.

A password recovery link and access to email do not disable the second factor. If all verified authenticators are lost, the app has no automatic MFA recovery. The service operator would need to verify your identity separately under its own procedure; access restoration is not promised. This release does not issue one-time recovery codes.

1. To remove an authenticator, open the two-factor settings and select the factor.
2. Confirm the action with a fresh code from an available verified authenticator. Signing in with a password alone is insufficient.
3. Check which factors will remain. Removing the last verified factor requires separate explicit confirmation and disables two-factor protection for the account.

> If a new authenticator has not finished setup, cancel its setup: an unverified factor does not replace an active one. When changing devices, add and verify the new factor before removing the old one.

This section applies to the cloud account on this website. MFA for a separate self-hosted team server and corporate SSO/SAML sign-in require their own setup and are not enabled by this setting.

25 Container balance and center of gravity

Cargo balance indicators are free. Configure a profile for the selected transport unit; the profile does not rearrange cargo or replace the other loading checks.

1. In Transport settings, open Container balance profile and enable checking. Cargo CoG values remain available without a profile.
2. For a sea container from the catalog, explicitly choose CTU 2014 or custom limits. Other transport uses custom limits. Record the operator's document or internal source.
3. For the combined CoG, enter the measured empty-container mass and all three tare CoG coordinates. Leave unknown values blank.
4. Review a current calculated layout. Export the loading instructions or technical PDF to include the configured balance appendix.

> CTU Code 2014 · Annex 7 §3.1.4 · p.105. The CTU 2014 reference uses 5% longitudinal offset and a 60% half-length mass share as separate comparisons. It does not confirm lifting or transport safety.

Reference: wwwcdn.imo.org

- Coordinates: X from the closed end, Y from the side wall, Z from the floor. Y and Z limits are not assigned automatically.
- Unknown unit mass prevents confirmation of the full cargo CoG. The known mass portion is shown separately.
- The combined CoG requires measured tare data; road axle settings are not reused as container tare.
- A unit crossing the midpoint produces mass intervals for the halves. Its internal mass distribution is not assumed. Half-mass shares are not equivalent to CoG offset.

Four-corner lifting reactions are not calculated. A value within the selected reference is not handling approval; check operator conditions, securing and equipment separately.

The settings and results use the project's display units, including in/lb. Stored values remain cm/kg, and the document language stays independent of the interface.

26 Securing reference worksheet

The securing reference worksheet is free. It compares a top-over lashing alternative for one stable, rigid box resting directly on the floor. It does not certify EN 12195 compliance or confirm that restraints have been fitted.

1. Open Checks in the project, then expand "Securing reference calculation". Add a case and select the cargo unit and the IRU 2014 road reference profile explicitly.
2. Enter the documented friction, strap, measured pretension, angle and anchor data. Confirm only physical conditions that you have actually checked; a tick is your statement, not an inspection by the app.

3. Calculate the case. Read the directional results and any missing-data or out-of-model messages. Alternative cases are independent; do not add their strap counts or capacities together.

Input	What to check
Mass and center of gravity	Use the accepted physical plan. Unknown values are not replaced with zero.
Friction and surfaces	Record the source and actual contact conditions. Selecting a mat does not invent a friction coefficient.
LC, STF and actual pretension	Use the label and manufacturer data; record measurements and their source for both strap legs. LC is not STF or breaking force.
Angles and anchors	Confirm the actual geometry, separate anchor points and documented capacities. Unsupported arrangements remain unassessed.
Operational minimum	Enter a strap minimum and its source. Zero sliding demand does not mean that no restraints are needed.

The sliding estimate takes the greatest directional requirement, rounds upwards and respects the entered operational minimum. Credited pretension is capped by the lowest of labelled STF and the two measured leg tensions. Forces use daN or lbf, not kg or lb of mass; saved force values remain in daN and dimensions/masses remain metric.

> A missing mass, center of gravity, source, contact or force datum leaves the count undetermined. Pallets, stacked or non-rigid loads, rolling goods, shared anchors and a box that fails the unlashed tipping check are outside this worksheet. It does not size blocking, airbags, direct or combined lashings.

Save the case with the project JSON or full workspace. A change to the physical plan makes the measurements stale. Inspect the changed plan and explicitly recheck the binding before recalculating; a saved case must not silently authorize a different arrangement.

> PDF instructions use the selected document language independently of the interface. Warehouse marks confirm boxes only: they do not confirm strap installation or update this securing calculation. The saved calculation is a reference, not a transport approval.

This worksheet refers to public IRU 2014 road guidance. The full paid standard is not bundled, and the worksheet is not a complete implementation of EN 12195-1:2010 plus its corrigenda. Obtain an independent engineer's review of the applicable rules, equipment and actual arrangement before production use.

Reference: www.hsa.ie

27 External codes and SSCC in the warehouse

An external code is assigned to a specific physical unit, not a product name or SKU. This free part of the local project preserves the internal unit ID. Each unit can have one code, with limits of 2,500 assignments and 256 characters per code. A code does not grant access to the project.

1. Calculate the plan. Open “Verification → External unit codes” and choose “Assign an external code”. Select the placed unit and check its vehicle and instance number.
2. Choose SSCC or an external code, then paste the text or read it with a USB/Bluetooth scanner. Enter only validates the input; click “Assign code” separately to save it.
3. Save the project JSON or full workspace. For a cloud team, publish and approve a new revision: a run already in progress continues using the assignments from its own revision.
4. In the warehouse, open the correct run and “Scan a code”. Paste the code, use a scanner that sends Enter, or turn on the camera on request. Check the selected unit against its label, then confirm loading separately.

Format	Supported input
SSCC	18 digits including the check digit; leading zeros remain part of the string.
AI (00)	One standalone SSCC: (00) + 18 digits, or 00 + 18 digits without parentheses.
Symbology identifier	For one AI 00 element, the prefixes]C1,]d2 and]Q3 are recognized with exact case.
Other external codes	EAN, Code 128 and QR text use exact matching: case and significant spaces are preserved. General scanner prefixes are not removed automatically.

> Any 18-digit string is reserved for SSCC, even when the ordinary barcode type is selected. The check digit checks the SSCC composition, not its GS1 allocation, ownership or box contents. Composite GS1 messages with several AIs, GS1 Digital Link and EPC URIs are not supported yet; enter a standalone SSCC.

> A code repeated across units is ambiguous: scanning does not choose one by name, position or elimination. An unknown, invalid or unplaced code cannot identify a unit in the layout. Select it manually and ask the planner to check the assignment. Scanning does not create a warehouse mark by itself.

Assignments belong to the saved project revision and survive changes to an existing unit’s size, mass or position. Removing a physical unit, including by reducing quantity, removes its assignment; Undo or re-adding the same ID does not revive it. Assign the code again explicitly. An explicit initial JSON import can restore saved assignments.

The camera starts only when requested and needs browser permission, a suitable device and lighting. If unavailable, use pasted text or a USB/Bluetooth scanner. Offline use relies only on a previously saved context for the correct run; syncing warehouse marks requires a connection.

Existing MakeCargoFit QR codes continue to work with loading-context checks. A QR code with loading parameters cannot be assigned as an external code, and scanned URLs are not opened. The PDF lists exact codes from the saved plan and warns about duplicates; the app does not invent SSCCs or generate barcode images. Select the PDF language independently of the interface.

28 Organization loading analytics

An owner or editor can open “Loading analytics” in the cloud team. It compares each run’s exact plan revision with marks accepted by the server. This first read-only mode introduces no new price or paid entitlement; existing local-plan metrics and available run journals remain accessible.

1. Open the intended organization and “Loading analytics”. Retrieving the report requires a connection. Reopen it after switching account or organization.
2. Choose the last 7, 30 or 90 days, or the “From” and “To” dates. Both dates in the interface are inclusive and use UTC. Runs are selected by their start date; the report’s exclusive upper bound is midnight after the “To” date.
3. Check the cutoff time and coverage message. “Retrieve more runs” adds pages from the same query. Until all pages have been read, cards, the table and CSV cover only runs retrieved so far.
4. Read the main totals under “Completed runs”. Active and cancelled runs are separate. Distinguish units with a current problem from units that had a problem earlier in the run.
5. Before the final export, send warehouse device queues, wait for server acceptance, then select “Refresh cutoff”. Download “CSV of retrieved runs”; coverage and cutoff are included explicitly in the file.

Metric	How to read it
Planned → confirmed	Placed units and units whose latest server state is loaded. Unplaced units from the original plan are shown separately.
Calculated volume utilization	Volume from declared dimensions and cargo shape divided by the capacity of all allocated transport. Confirmed volume uses the same declared data for marked units; it is not measured occupied space.
Known mass	The sum of known masses, including the known part of pallet contents. If any full unit masses are unknown, the known subtotal is not a complete mass. A loading mark does not replace weighing.
Problems / skipped / pending	Latest unit states by server sequence. Retrying the same event does not add units. Historical problems are counted separately from current states.

> Percentages use summed cargo volumes and total capacity, not an average of individual run percentages. The denominator includes all allocated transport units, even empty ones. Completed, active and cancelled runs are not combined into one metric. Values above 100% are not clamped: they can reflect the source layout's tolerances and do not constitute a safety check.

> The server calendar interval runs from the run's start to the responsible person's signoff. It includes waiting, breaks and network delays. It is not working time, loading speed or an employee ranking. An active run has no completed interval.

Device time and clock diagnostics describe time-data quality, but do not determine the calendar interval. Events use server acceptance time through the cutoff, including after the selected period ends. Delayed offline marks appear after acceptance and a report refresh.

The report and CSV exclude employee names, event authors, notes and photographs. Cargo contents are not sent to GA/Ads. Warehouse viewing and existing journals remain separate from organization analytics. The report does not prove physical loading or transport safety.

29 Test API and organization keys

The API is a separate preview interface for server integrations. It is off by default: the operator must enable TEST mode and explicitly grant limited test access to the organization. Registration, local Free use and creating a cloud account do not automatically grant an API quota. Sales, real payments and LIVE access are not enabled in this version.

1. Prepare a cloud account and organization. The operator configures the server, pilot expiry and quotas; ordinary users cannot change these through a project.
2. The owner opens "API keys" in the cloud team. Management requires the current owner session and the applicable two-factor check. Editors, viewers, warehouse roles and API keys cannot create other keys.
3. Choose a clear name, minimum permissions and a UTC expiry date. Start with plans:read. Calculations require plans:write together with plans:read; expiry must be in the future and within the server lifetime limit.
4. Click "Create API key" once. Copy the secret or explicitly download its file in the one-time issuance window. Closing the window removes it from this interface; the list retains only the prefix and metadata.
5. Use the key only on your own server in the Authorization: Bearer header. Do not put it in a URL, public JavaScript, project JSON or a chat. Browser requests with Origin are unsupported; cookies do not replace a Bearer key.
6. Read approved plans or submit a separate private calculation with schemaVersion and a stable Idempotency-Key. Save the returned job identifier and poll its state with GET instead of creating another calculation on every poll.

7. Revoke the key when the integration ends or the secret is lost. The owner can list and revoke existing keys even when test access is disabled or expired.

Route	Purpose	Permission
GET /api/v1/approved-plans	Pages of the organization's approved plans	plans:read
GET /api/v1/approved-plans/{revisionId}	Read an exact approved plan	plans:read
POST /api/v1/pack-jobs	Create a private calculation job; does not publish or approve	plans:write + plans:read; Idempotency-Key
GET /api/v1/pack-jobs/{id}	Stored job status and result after completion	plans:read; the same key that created the job

> Current API preview limits are 100 source units, 20 cargo rows, 2 transport units and a 2-second calculation budget. The operator sets quotas; exceeding them does not automatically buy more requests. The local 2500-unit limit and existing free features are unchanged.

> If the key-creation reply is lost, repeat the same request with the same identifier. No second key is created, but an already issued secret cannot be recovered: the reply contains metadata only. If you did not save the secret, revoke the key and create another. For calculations, the same Idempotency-Key and content return the same job; different content with that key is rejected. Calculation retries must use the same API key, not merely the same organization.

Jobs and results are stored on the server, so a broken HTTP connection does not mean a new calculation. Check status at the returned job URL. Background recovery runs every 5 minutes, with at most 3 execution attempts. No exact completion time is promised. Calculations use the same packing core and its checks, not an AI request. Server policy limits job and result retention; save any result you need separately.

The database stores a hash, prefix, permissions and expiry, not the full key secret. The interface holds the secret only in memory while its window is open; it is not included in the project, workspace JSON or browser settings. An explicitly downloaded file contains the secret and must be stored like a password. This key does not replace your personal OpenRouter key.

API reads do not expose other organizations or unapproved working versions. A private calculation result does not itself create a shared link, approval or loading marks. API PDF and explicit viewing-link publication are described in section 30. TEST calculation-completion notifications are described in section 31. Ready-made ERP/TMS connectors, the widget and MCP remain outside this stage. The existing core's safety checks and warnings remain visible; a calculation is not approval for physical transport. The list shows current approvals. If approval changes, retrieve the list again: the former revisionId may no longer be returned. Revoking a key also stops its unfinished jobs and deletes its private inputs and results.

30 API PDF and protected 3D viewing links

> This is a TEST pilot, disabled by default. An operator must grant access and quotas. It does not enable LIVE payments, automatic credit purchases or AI requests. The API key stays on your server; never put it in a browser app or URL.

Route	Purpose	Permission
GET /api/v1/pack-jobs/{jobId}/pdf?lang=en	Download loading instructions from a completed private job	plans:read
GET /api/v1/approved-plans/{revisionId}/pdf?lang=en	Download the currently approved revision as loading instructions	plans:read
POST /api/v1/pack-jobs/{jobId}/shares	Publish a completed private job as a read-only viewing link	shares:write + plans:read; Idempotency-Key
DELETE /api/v1/shares/{shareId}	Revoke a link created by this API key	shares:write + plans:read

1. The owner grants plans:read for PDF downloads. Publication additionally needs shares:write, which requires plans:read. A job and its PDF/link belong to the same API key; a different key in the organization cannot take them over.
2. For PDF, choose ?lang=en, ru, es, zh-CN, de, pl, uk, ro or lt. This is independent of the interface. Without lang, the project document language is used, otherwise English. Units follow the saved project. Coordinates, unknown mass, unplaced units and safety appendices remain visible; the PDF is not transport approval.
3. Wait for a succeeded job before publication. Generate a random 32-byte token encoded as 43 unpadded base64url characters and a UUID Idempotency-Key. Before POST, save the job ID, API-key identity, complete request, token and UUID in a private file. Retry with that same key, UUID and identical body. A lost reply must not generate a new token or publication.
4. For password protection, derive the password proof on your server: PBKDF2-SHA256, 600000 iterations, random 16-byte salt and 32-byte proof, with a fresh UUID version. Encode salt/proof as unpadded base64url and send the proof object, not a plaintext password. Use 8–128 characters and pass the password to the recipient separately. The Node.js example on the developer page saves the retry state before sending.

> Publication uses the existing account/tariff sharing rules: Free has 3 active links per account; expiry or revocation frees a slot. Credit publication requires an explicit spendCredits.expectedCost confirmation. Omit spendCredits to prevent automatic credit spending; retrying must not silently authorize payment. Tablet views do not buy credits.

The returned /view/#… URL is a secret capability: give it only to the crew. It opens 3D visualization and loading information without editing. API DELETE can revoke only a link created by the same key; the owner can manage it in the existing sharing screen. Revoking the API key closes its links. Private job/result expiry

does not by itself promise that an already published link disappears; check the link expiry and revoke explicitly.

API-created viewing links omit cargo/project notes, organization catalog metadata and logos. includeNotes accepts only false in this pilot. Safety warnings generated from the plan remain visible.

> Current preview defaults: at most 100 source units, 20 cargo rows and 2 vehicles; PDF budget 5 seconds, 100 pages and 4 MiB. There is also a server concurrency limit. Operator policy may be stricter; 429/503 and budget/size errors require checking the result before retrying. Existing local 2500-unit planning and free PDF export are unchanged.

31 Webhooks: ERP/TMS notifications

The closed TEST pilot can notify an ERP/TMS server about pack-job.succeeded and pack-job.failed events. These report calculation completion, not transport safety or actual loading. The widget, MCP and ready-made ERP connectors remain separate features.

1. The owner opens “Organization API keys” → “Organization webhooks”. The list loads only after this section opens. Changes require an active session and fresh authenticator verification when two-factor protection is enabled.
2. The operator first configures an approved receiver for the organization and its signing secret on the server. The interface offers configured destinations with a public HTTPS origin; it accepts no arbitrary URL or secret. The operator must confirm receiver consent before enabling deliveries.
3. Select an active API key with plans:read, choose a destination and connect the webhook. The subscription belongs to that exact key and subsequent completion events for its jobs. Old events are not sent automatically; the interface performs no test delivery.
4. After a lost reply, refresh the list and retry the same request. The interface retains the UUID and parameters until confirmation, preventing a second subscription. Closing the section or switching accounts clears the unfinished request; inspect the list as the correct owner first.
5. The receiver checks the HMAC signature of the raw body and the sending timestamp, durably stores the event and only then replies 2xx. Deliveries can repeat or arrive out of order. Deduplicate by stable event ID; retrieve results with the existing API key and ordinary access checks.

Notifications contain only identifiers, status and expiry metadata. They exclude cargo, notes, PDFs, viewing links, API keys and payment data. Retry and retention are bounded by pilot policy; the screen counts pending, delivered, failed and cancelled deliveries.

> The owner can revoke a subscription even while the pilot is disabled. Key revocation also stops future deliveries for that key. One delivery already in flight may still arrive after revocation. Disabling delivery does not change existing PDFs or warehouse links. TEST flags default to off; no new prices, automatic charges or LIVE operation are enabled here.

32 Embed a calculator on a website

The closed TEST pilot adds a calculator and a rotatable 3D plan to a forwarder website. It is a geometric estimate with warnings, not confirmation of transport safety or actual loading.

1. The operator separately grants the organization a widget pilot and enables WIDGET_TEST_ENABLED and the private widget policy. The owner opens “Organization API keys” → “Embedded widgets”. A widget grant does not require an API pilot; visitors need no API key.
2. Enter the public title and company, accent color and language. List exact allowed HTTPS origins, without paths, trailing slashes or wildcards. Do not paste keys or personal data. An optional logo is converted to PNG; defaults are 32 KB and 512 × 512 px. Confirm publication of the branding.
3. Create the widget and explicitly copy its iframe code to an allowed site. Preview opens only on request. After a lost reply, refresh the list and retry the same request; its UUID and parameters stay in the open form. Profiles are immutable: revoke, recreate and replace the code to make changes.
4. Visitors enter their own cargo and cm/kg or in/lb units. Calculation runs locally in a separate worker and the plan can be rotated. Visitor cargo, your workspace projects, personal AI settings and API keys are not sent to the server.

Pilot defaults are at most 3 active widgets (or fewer under the grant) and 100 retained profiles, including revoked ones. Old UUIDs are not purged automatically, preventing an old request from creating a new publication. These are technical limits, not a new price; configuration controls access and caps.

> Revocation blocks new openings; an already open calculator may continue locally. frame-ancestors restricts embedding but does not make the title or logo secret. The server receives ordinary page/resource access requests. There is no lead form, email sending, advertising tracking or AI in this increment. Before collecting leads later, the operator and forwarder must separately agree data handling/DPA.

33 Connect an AI assistant through MCP

This is a local stdio TEST pilot for developers, using a separately enabled organization API key. It is not a public MCP service. Plans and notes returned to an assistant become visible to that assistant and its provider.

1. After a local build, configure the client to run node dist-server/mcp.mjs directly, with MAKECARGOFIT_MCP_TEST_ENABLED=true, an exact HTTPS MAKECARGOFIT_MCP_ORIGIN without a trailing slash, and a TEST MAKECARGOFIT_MCP_API_KEY stored only in a protected local secret setting. Do not use npm as the stdio command or put the key in Git, a browser or chat.
2. Read-only by default: approved plans, private job summaries and instruction PDFs in a separately selected language. Only explicit MAKECARGOFIT_MCP_ALLOW_PACK=true adds private job creation. Existing API scopes and quotas apply; this adapter cannot buy credits, publish links or call AI.
3. For packing, retain the same caller-generated idempotency UUID and unchanged project for every retry, including after a timeout. Query the returned job explicitly. A valid geometric plan does not confirm transport safety. Setup and limits: docs/MCP-PILOT.md.

34 Agent journal

On the “Agents” tab of the cloud team, owners and editors see what agents (for example an MCP client) did through the organization’s API keys: runs, their status, the key by name and prefix without the secret, events and the agent’s summary. Viewers and loaders do not see this tab.

1. The owner creates a key for the agent in “API keys” with the “Agent” preset: reading approved plans and private load calculations, valid for up to 30 days, without link publishing. The secret is shown once; authenticator confirmation works as for any key.
2. Connect the MCP client using the hint below the preset and paste the secret yourself. The agent imports cargo, calculates the layout, checks the plan and prepares the PDF; actions are written to the journal.
3. Open “Agents”, choose a run and read its events and summary. The agent’s text is shown as is; links in it are not active.
4. Decisions — approving a revision, issuing a link, payment — are made on the usual screens with their checks. The journal has no buttons that perform actions.
5. To stop an agent, revoke its key in “API keys”: new calls are refused, open runs are closed, and history is kept until the retention period ends.

> The journal is written after each action and may be incomplete: a lost connection between an action and its entry leaves the action without an event. It is not a complete transactional audit. When new runs are switched off, saved history remains available. This is a TEST feature: the agent makes no payments, AI requests or publications.

35 MakeCargoFit Connect: free container transport network · TEST

Connect is free for shippers and forwarders: company profile, private and published requests, clarifications, quotes, comparison, PDFs, 3D viewing, the forwarder cabinet and the website request form. No subscription, Team seats or AI credits are needed; freight is paid to the forwarder directly. Open it from the “Connect · freight” menu or the “Request transport” button in the planner. Until the installation owner turns on the TEST switch, Connect shows that it is off.

1. Shipper: calculate a plan, press “Request transport”, sign in with a free account and create a Connect company. The company and its roles (owner, manager, viewer) are separate from the cloud team.
2. Fill in the route, service scope (port/door), cargo-ready date, commodity and DG status. The preview shows what forwarders receive: a separate snapshot of one project without the workspace, notes, internal IDs, keys or AI chats. An unknown DG status is never treated as non-dangerous; incomplete data produce a preliminary request.
3. Add recipients: your partners (via a one-time link you pass on yourself) or verified forwarders from the directory. Each gets its own 3D viewing period that you can revoke without breaking documents or history.

4. The comparison only ranks current, complete and valid quotes for the same scope and containers in one currency; different currencies are never added up and an unknown amount is not zero. “Continue arrangements with the forwarder” creates no booking, contract, payment or delivery.

1. Forwarder: create a company with the forwarder role and, if you wish, submit it for operator verification. The public card and service listings appear in the directory only after verification and your explicit opt-in.
2. In “Incoming”, open a request, ask a question and send a structured quote: charges (included/excluded/unknown), currency, unit and quantity, validity, the rate event, ETD/ETA, equipment, vessel space and free time. A new request version needs a new quote version.
3. The request form for your website is free: enter the exact HTTPS addresses of allowed sites and your brand. A visitor’s request reaches only you as a private request; MakeCargoFit does not email the visitor or pass the request to other forwarders.

The network operator is appointed by the installation owner on the server and confirms actions with a fresh authenticator code. The “Verified” badge states the specific checked details, date, reviewer and validity; it cannot be bought. Reports, rejections, suspension and the action log are stored on the server; a suspended company cannot publish, answer or read other parties' requests.

> This is a TEST feature: real carrier bookings, freight payments, external rate feeds are not connected. An e-mail copy of a notification is sent only if the operator has configured a mail service and you turned on “Also send notifications by email”; it contains only the event type, the request number and a link to the app. The status “Email handed to the mail service” does not confirm delivery to a mailbox; without a configured service, notifications are visible only in Connect and marked “email not sent”. A 3D layout does not confirm a rate, equipment availability, securing, CTU compliance or VGM; the sum of entered weights is not VGM.

> The only planned paid part of Connect is optional promotion of public listings and advertising for separate promo credits; it does not work now and does not affect ordering or verification.

Official references

- Chrome: install a web app
  https://support.google.com/chrome/answer/9658361?co=GENIE.Platform%3DDesktop&hl=en
- Chrome for Android: install a web app
  https://support.google.com/chrome/answer/9658361?co=GENIE.Platform%3DAndroid&hl=en
- Microsoft Edge: install and manage apps
  https://support.microsoft.com/en-US/edge/install-manage-or-uninstall-apps-in-microsoft-edge
- Safari on Mac: web apps in the Dock
  https://support.apple.com/en-us/104996
- Safari on iPhone: open a website as an app
  https://support.apple.com/guide/iphone/open-as-web-app-iphea86e5236/ios
- OpenRouter: API keys and credit limits
  https://openrouter.ai/docs/api/reference/authentication
- OpenRouter: quickstart
  https://openrouter.ai/docs/quickstart

- EPAL: Euro pallet dimensions and approximate tare
  https://www.epal-pallets.org/eu-en/load-carriers/epal-euro-pallet

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