Odoo Print & Scan – Manual

Direct print and direct scan from Odoo: Odoo module, Windows app and Mac app

As of 29 November 2026 (protocol 2.3)

The Odoo module is in production use. The Windows app (0.9.14) is not yet digitally signed, the Mac app (1.1.3) is notarised by Apple; sections describing features that are not yet delivered carry a note. All examples use invented companies and people. The Odoo screenshots show invented test data; the Mac app images are renderings of the windows, not screenshots, and partly still show the app's previous working title. Menu and message texts are quoted as the Odoo module currently displays them.

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01 Overview and terms

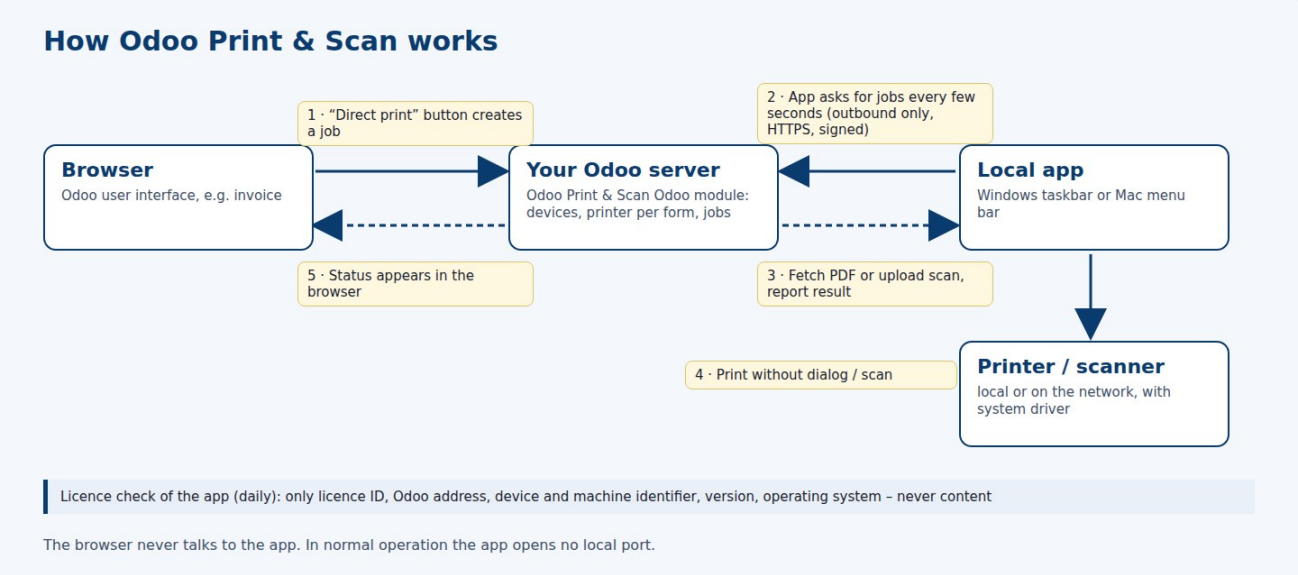
Odoo Print & Scan connects Odoo with the printers and scanners at your workplaces. One click in Odoo prints a document on the right printer without a print dialog. A second click starts the scanner, and the finished PDF is then stored in Odoo exactly where you started the scan.

This manual describes the Odoo module and the apps for Windows and macOS. All examples use invented companies and people. The Odoo screenshots come from a test installation with invented test data; device names and network addresses in them have been replaced. The pictures of the Mac app are **renderings of the windows** with invented values, not screenshots.

How Odoo Print & Scan works

Odoo Print & Scan consists of two parts:

- the **Odoo module** on your Odoo server. It manages the paired computers, the assignment of printers to form types and the jobs.
- the **app** on each computer that is to print or scan directly. It runs as an icon in the Windows taskbar or in the Mac menu bar.



How a job runs:

1. You click **Direct print** or **Direct scan** in Odoo. Odoo creates a job for your computer.
2. Every few seconds the app asks Odoo whether a job is waiting. These requests always start from the app, only over HTTPS and with a signature that only your computer and your Odoo server know.
3. For a print job, the app fetches the PDF from Odoo and sends it to the printer without a dialog. For a scan, it controls the scanner and uploads the PDF to Odoo.
4. The app reports the result to Odoo. The Odoo page in the browser shows the status, for example "Printed." or "Scan received."

The browser never talks to the app. This is why Odoo Print & Scan also works with Safari, which blocks connections from an HTTPS page to a program on your own computer. In normal operation the app does not open a network port.

How it helps in practice: an example

At "Muster Elektro Handels GmbH", warehouse worker Jonas prints around thirty delivery slips a day. He used to open each PDF, choose the warehouse printer and confirm the print dialog. Now Odoo has a one-time setting that delivery slips go to the printer at the packing station. Jonas clicks **Direct print**, and

seconds later the delivery slip is in the output tray. Invoices from the office still go to the printer with letterhead paper, because there the form type "Invoice" is assigned to a different printer.

Terms

Term	Meaning
Device	A computer with the app that is paired with an Odoo server. In Odoo under *Settings → Hardware Bridge → Devices*.
Pairing	The one-time connection between the app on a computer and an Odoo user on an Odoo server. One app can be paired with several Odoo servers.
Owner	The Odoo user who paired the device. Company administrators can share a device with further users.
This Workplace	The device your jobs go to if you have several devices.
Job	A print or scan that Odoo provides for a device. A job is short-lived: a print must start within two minutes, a scan must be completed within ten minutes.
Form type	Kind of document, for example invoice, delivery slip or quotation. The printer and the local PDF storage depend on it.
Default printer	The printer that the computer's operating system has set as default. It is used if no printer is assigned in Odoo.
PDF storage	Optional copy of printed documents as PDF in a folder on the computer or on the network.
Scan copy	Optional copy of a scan in the local folder before it is uploaded to Odoo.
Odoo address	The HTTPS address of your Odoo server, e.g. `https://odoo.beispiel.de`.
Licence	Permission to use the app, signed by Biricon and bound to the Odoo address and the computer.
Quota	Number of computers that may use a licence.
Machine ID	An irreversible identifier of the computer derived from the hardware (32 characters). It binds the licence to the computer.

Status of the components

This manual describes the functions according to the binding process specification (protocol 2.2). Not everything is finished on every platform yet:

Component	Status (November 2026)
Odoo module for Odoo 19	in productive use
Windows app	**being trialled.** Tested are sign-in to Odoo, licence check, job flow, silent printing, scanning via the feeder and double-sided, and the per-user installation. The taskbar app working as a whole, the per-computer installation, the Group Policies and the code signature are still being trialled.
Mac app	**in the test phase.** Verified are pairing via link with a click, licence with self-activation, job retrieval, printing and scanning via the flatbed on real hardware, and the evaluation of the configuration profile. Not yet checked or in development are, among other things, pairing without a click, scanning via the feeder and double-sided, local folder storage, the notarised installer and autostart.
Linux and Raspberry Pi	planned (see chapter 13)
Version 3 (print rules, stations, batches and more)	in development (see chapter 13)

Sections whose function is not finished yet carry a note in this manual.

Trademark notice

Odoo is a trademark of Odoo S.A. Odoo Print & Scan is a product of Biricon IT Services GmbH, not a product of Odoo S.A., and is neither endorsed nor reviewed by Odoo S.A.

02 Requirements and setup in Odoo

This chapter is for the Odoo administrator. It describes what the Odoo server needs, how the module is set up and who may see and change what.

Requirements

- **Odoo 19**, Community or Enterprise. The module depends only on the Odoo base modules `base`, `web` and `bus` and does not need any accounting, inventory or sales modules.
- **Your own server or Odoo.sh.** On Odoo Online (the SaaS version of Odoo) you cannot install your own modules; Odoo Print & Scan cannot be used there. On Odoo.sh it is possible; on small plans with few workers, the polling interval should not be set too short (see below).
- **Public HTTPS address.** The apps only contact Odoo via `https://` and check the certificate against the computer's certificate store. A certificate from your own company CA works if the CA is distributed to the computers. The system parameter `web.base.url` must contain the public address.
- **Printers and scanners** are set up in the operating system on the computers. On Windows, scanners are addressed via the WIA system interface, on the Mac via ImageCaptureCore.

Installing the module

The module `biricon_hardware_bridge` is provided by Biricon and, like any custom Odoo module, placed in the addons path and installed. If Biricon carries out the setup, you can skip this step.

> **Note:** As with any module change: install on a test database first, then on production.

Key for the device secrets

Each paired device has its own secret. Odoo stores it encrypted (AES-256-GCM). The key for this is **never stored in the database**:

- either as the entry `hardware_bridge_key = <32 bytes, urlsafe base64>` in the Odoo configuration file,
- or the module creates it on first use as a file in the Odoo data directory (`<data_dir>/hardware_bridge/<datenbank>.key`, readable only by the Odoo service).

Back up this key separately from the database. If you move the database to another server without the key, all devices must be paired again.

Menu and access rights

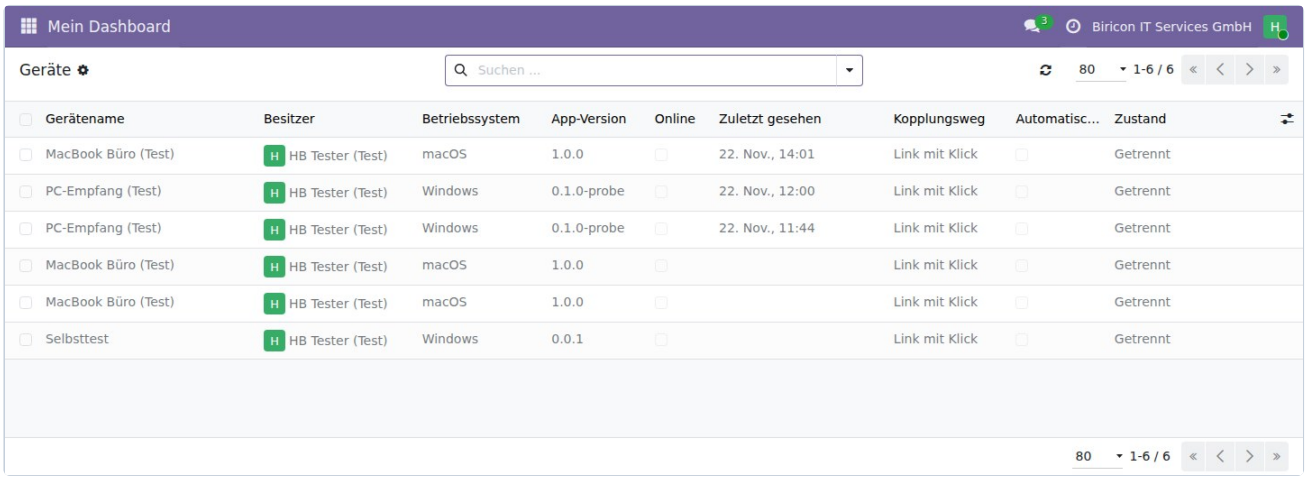
All settings are under **Settings → Hardware Bridge**:

Menu item	Content
Devices	Paired computers with owner, operating system, app version, online state, last seen, pairing method and the *Disconnect* button
Printers per Form Type	Printer per form type (applies to all devices)
Printer per Device	Different printers for individual devices
Jobs	Log of all print and scan jobs, without document contents
Pair Device	Entry of a pairing code (fallback method, chapter 04)

Menu item	Content
Download App	Configuration file `hb-config.json` with the address of this Odoo server; installers will follow once the apps are released

Access rights:

- **Every user** sees their own devices and jobs as well as devices shared with them. They can disconnect their own devices.
- **Company administrators** (Odoo right *Access Rights*) see all devices and jobs of the company, can share devices with further users, change the owner and disconnect any device.
- For each job, Odoo additionally checks whether the user may read the document (print) or change it (scan). This check takes place when the job is created and again when it is delivered.



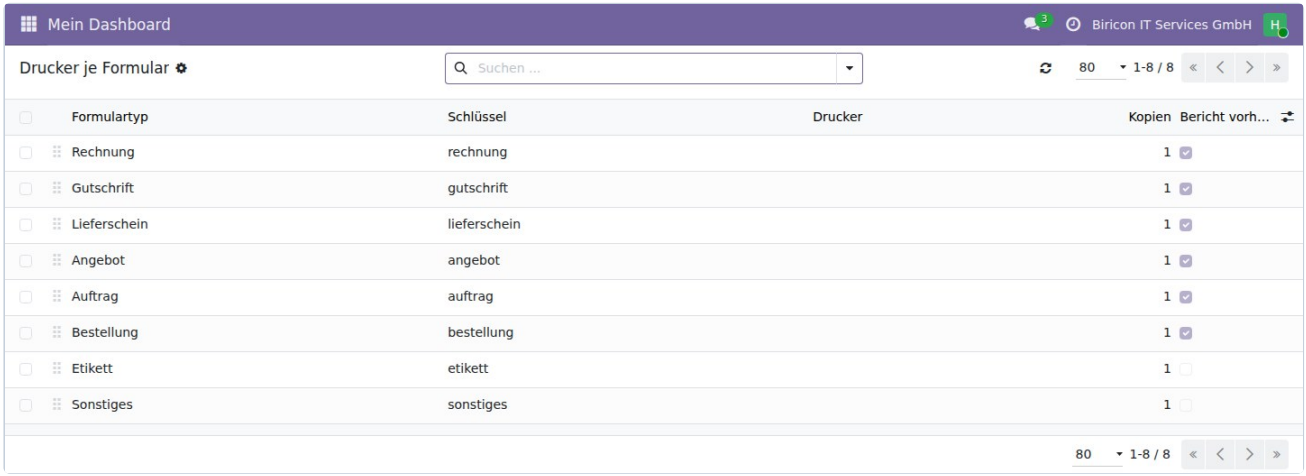
Printers per Form Type

Under **Printers per Form Type** you specify which form type goes to which printer. The form types are prepared with these fixed keys:

Form type	Key
Invoice	`rechnung`
Credit note	`gutschrift`
Delivery slip	`lieferschein`
Quotation	`angebot`
Sales order	`auftrag`
Purchase order	`bestellung`
Label	`etikett`
Other	`sonstiges`

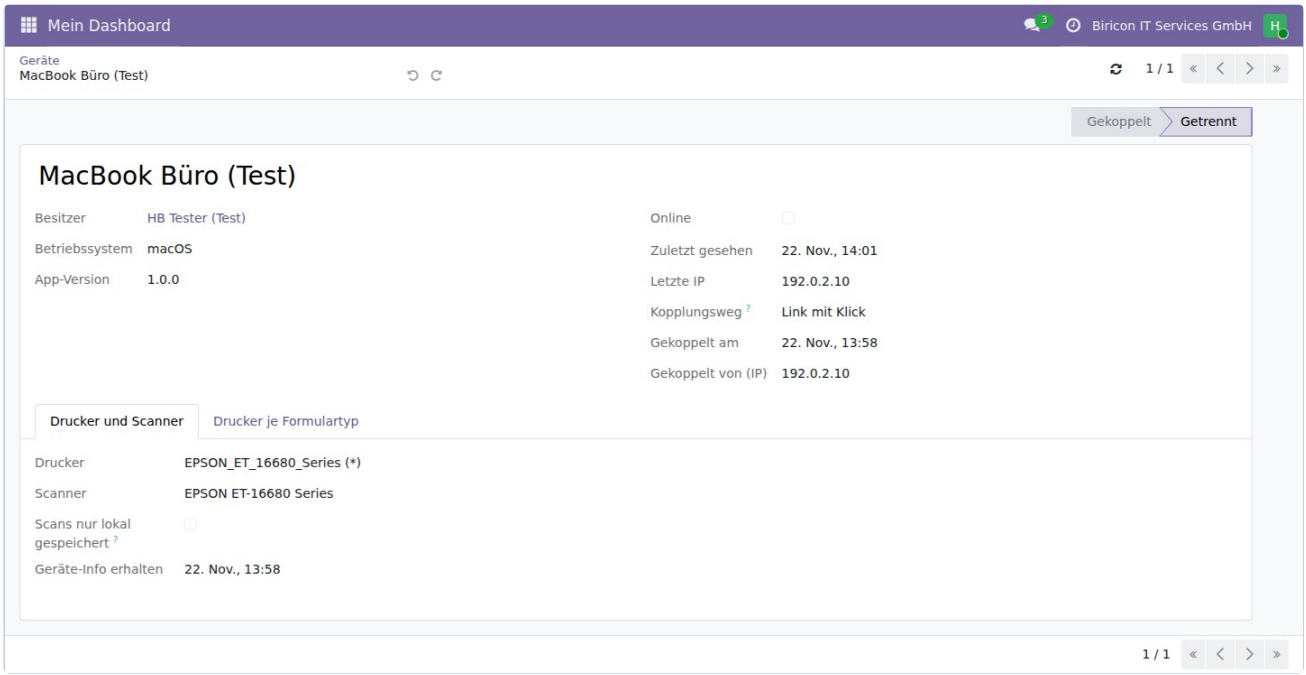
The apps, the registry and the Group Policy templates use the same keys. You may create further form types (keys only from lower-case letters, digits and `_`).

1. Open **Settings → Hardware Bridge → Printers per Form Type**.
2. For the form type you want, enter the **printer name exactly as it is named on the computer**, for example `HP LaserJet Lager` or a Windows share such as `\\server\HP 4. OG`. Upper and lower case and spaces matter.
3. Leave the field empty if the default printer of the respective computer is to be used.
4. The column **Report Available** shows whether Odoo has found a matching report for the form type. For Label and Other it can be assigned freely.



Printer per Device

If individual computers have different printers, you override the assignment per device: under **Printer per Device** or in the device on the **Printer per Form Type** tab. One printer is possible per device and form type. The device's **Printers and Scanners** tab shows which printers and scanners the app has reported; the default printer is marked with `(*)`.



How it helps in practice: an example

At "Kanzlei Beispiel & Partner", all computers print invoices on the printer `Kanzlei Briefpapier`. Only the computer at reception has its own printer. The administrator Selin enters `Kanzlei Briefpapier` for "Invoice" under *Printers per Form Type*, and under *Printer per Device* the printer `Empfang Laser` for the reception computer. All other form types stay empty and go to the respective default printer.

This Workplace

If a user has several devices (for example an office PC and a notebook), Odoo asks at the first job: "Which computer should receive the job?". With **Remember as "This workplace"** the browser remembers the choice. It can be set permanently in the user's own preferences under **This Workplace** or with the **Use as my workplace** button on the device. If the user has exactly one device, every job goes there without

asking.

Polling interval

The app asks for jobs at an interval set by the server. The system parameter `biricon_hardware_bridge.naechster_aufruf_in` defines it (default 3 seconds, allowed 0 to 60). With 3 seconds, a job appears on the computer after three seconds at the latest. With many devices and few Odoo workers, a value of 5 to 10 seconds can reduce the load.

Configuration file for the app

Under **Download App** the file `hb-config.json` with the address of this Odoo server is available. Place it next to the installer; the app then knows the address at first start and does not ask for it. In company environments, registry values or the configuration profile replace this file (chapter 08).

> **Note:** The installers themselves will only be available there once the apps are released. Until then, test customers receive them directly from Biricon.

03 Installing the app

The app is installed on every computer that is to print or scan directly from Odoo. It does not need its own server or any incoming network connection.

> **Note on status:** The apps are not yet generally released for download. The Windows app is being trialled, the Mac app is in the test phase. For a test phase, you receive the installers directly from Biricon.

Windows

Requirements

- Windows 10 (version 1809 or later) or Windows 11
- Printers and scanners are set up in Windows
- HTTPS connection to the Odoo server; a proxy is taken from the system settings or specified by a setting

Per-user installation (default)

The MSI package installs the app **for the signed-in user, without administrator rights**: in the user's program folder, with an entry in the Start menu and autostart at Windows sign-in.

1. Place the file `hb-config.json` from Odoo (*Settings → Hardware Bridge → Download App*) in the same folder as the installer. The app then knows the address of your Odoo server.
2. Start `BiriconHardwareBridge.msi` with a double-click and follow the wizard.
3. After installation the app starts. At first start, the setup dialog with the Odoo address and the pairing opens (chapter 04). After that, the app stays as an icon in the notification area of the taskbar.

The per-user installation without administrator rights has been tested.

Image to follow: Windows: setup dialog of the app at first start with the Odoo address
win_einrichtung.jpg

Per-computer installation (software distribution)

> **Note:** The per-computer installation is currently being trialled.

Image to follow: Windows: installation wizard of the MSI package
win_msi.jpg

Software distribution via Group Policy ("Computer Configuration") or Intune usually installs per computer. For this, the same MSI can be installed with `ALLUSERS=1`. The app is then located under *Program Files*, starts for every user at sign-in, and the supplied defaults are stored under `HKLM\SOFTWARE\Biricon\HardwareBridge`.

Silent installation and MSI properties

```
msiexec /i BiriconHardwareBridge.msi /qn BASEURL=https://odoo.beispiel.de AUTOSTART=1 LANGUAGE=de
msiexec /i BiriconHardwareBridge.msi ALLUSERS=1 /qn BASEURL=https://odoo.beispiel.de AUTOACTIVATE=1
```

Property	Effect	Registry value (installation default)
`BASEURL`	Address of the Odoo server, `https://` only	`Servers\1\BaseUrl`
`AUTOSTART`	1 = start with Windows sign-in (default), 0 = do not	`Autostart`
`LANGUAGE`	`auto`, `de` or `en`	`Language`
`AUTOACTIVATE`	1 = obtain the licence from the quota automatically (chapter 09)	`AutoActivate`
`LICENCEID`	Licence ID from the licence letter, if your licence requires it for self-activation	`LicenceId`
`ENROLLTOKEN`	Enrolment token from Biricon, if your licence requires it	`EnrollToken`

`LICENCEID` and `ENROLLTOKEN` are defined in the MSI as hidden properties and do not appear in the installation log. All properties write installation defaults; user and policy values take precedence (chapter 08).

Code signature and SmartScreen

> **Note:** The signature of the Windows files is currently being set up; the test versions are not yet signed.

Even correctly signed programs with a new certificate initially show the message "Windows protected your PC" when they are downloaded from the browser. Installations via software distribution (Group Policy, Intune) are not affected.

Updates

Updates are to be offered via **your own Odoo server**, never via a Biricon server. The setting `UpdateCheck` switches the check on or off; with the check switched off, updates only come via your software distribution.

> **Note:** The update check via the Odoo server is planned and has no function yet in the current test versions.

Uninstalling

Via Windows *Settings → Apps* or with `msiexec /x`. Disconnect the device in the app or in Odoo first, so that it does not remain in the device list as disconnected.

macOS

Requirements

- macOS 13 or later
- Printers are set up in macOS; scanners are addressed via ImageCaptureCore

Installation

> **Note:** The Mac installer is signed with Biricon's developer certificate and notarised by Apple. Distribution via MDM has not been checked yet.

1. Place the file `hb-config.json` from Odoo next to the installation package (`.pkg`). The installer takes it

over, and the app knows the address of your Odoo server.
2. Open the package and follow the installer.

Image to follow: Mac: window of the Odoo Print & Scan installer
mac_installer.jpg

3. At first start, the app asks for the address of your Odoo server if it comes neither from `hb-config.json` nor from a configuration profile. Only `https://` addresses are allowed.
4. The icon then appears in the menu bar.



The app looks for `hb-config.json` in the folder `/Library/Application Support/Biricon/HardwareBridge/`, in the user's home folder and in the *Downloads* folder. In managed environments, the configuration profile replaces this file (chapter 08).

The app does not have its own program icon yet; dialogs currently show the standard macOS icon.

Command line

For checking purposes, the app can also be called on the command line (after installation as `biricon-hb`):

Call	Effect
`--show-config`	shows the effective configuration and where each value comes from
`--machine-id`	shows the machine ID of this Mac
`--version`	shows the version

How it helps in practice: an example

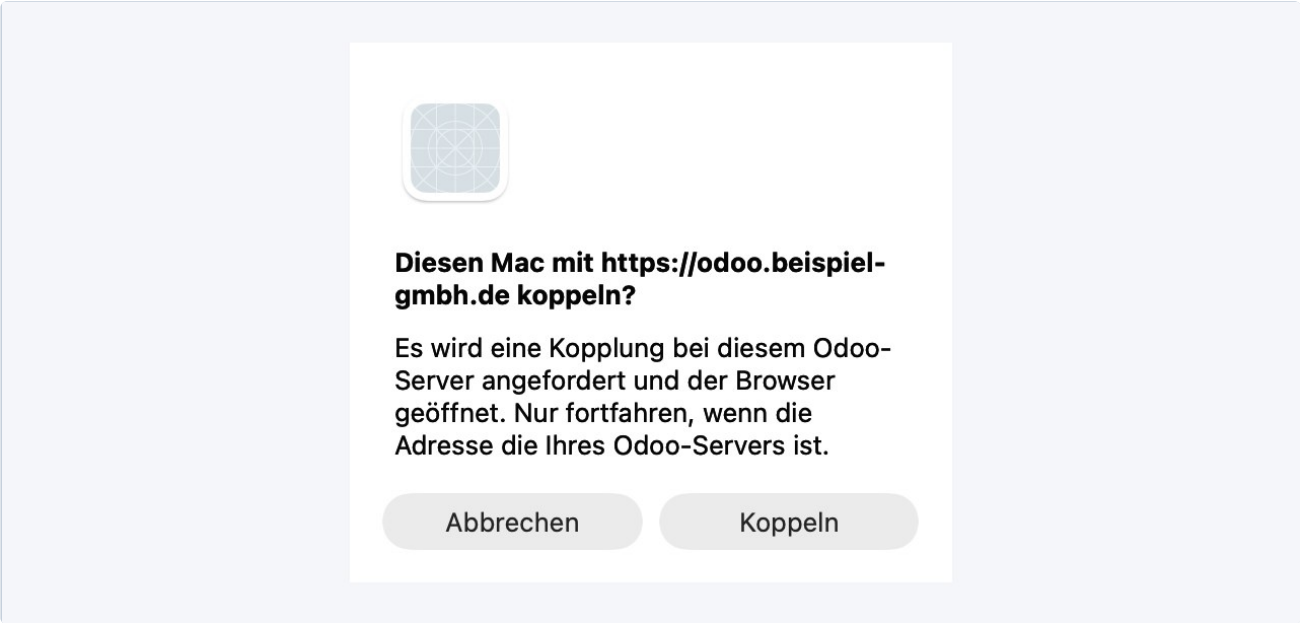
The IT department of "Autohaus Muster KG" distributes the Windows app to twelve workplaces in sales and in the workshop. It adds the MSI to the software distribution with `ALLUSERS=1 BASEURL=https://odoo.autohaus-muster.de AUTOACTIVATE=1`. The next morning the app is installed on all computers, knows the Odoo address and has obtained its licence by itself. Each employee only has to pair once (chapter 04).

04 Pairing

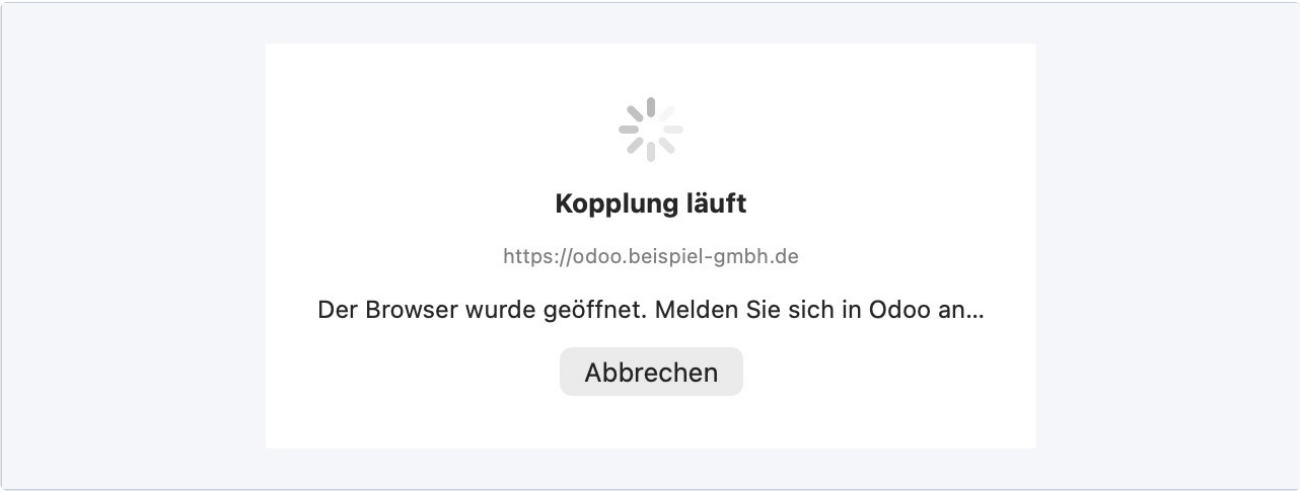
Before a computer receives jobs, the app is paired once with your Odoo user. During pairing, the app and Odoo agree on a secret that the app uses to sign every later request. The secret reaches the app exactly once and is stored there in the Keychain (Mac) or in the Windows Credential Manager.

Procedure

1. The app knows the address of your Odoo server from `hb-config.json`, from the registry or the configuration profile, or you enter it (`https://` only). On the Mac, the app explicitly asks before the first connection: "Pair this Mac with https://…?". Only continue if the address is that of your Odoo server.



2. The app requests a pairing code from Odoo and opens your default browser with the pairing page of your Odoo. If you are not signed in to Odoo, sign in; you then continue on the pairing page.



3. The pairing page first tries the automatic method (Method A). If it does not succeed, it shows the **Pair this computer** button (Method B).
4. After confirmation, the app collects its secret and reports itself as paired. The icon changes to the green dot.

The pairing code has eight characters (without the easily confused characters 0, O, 1 and I), is valid for ten

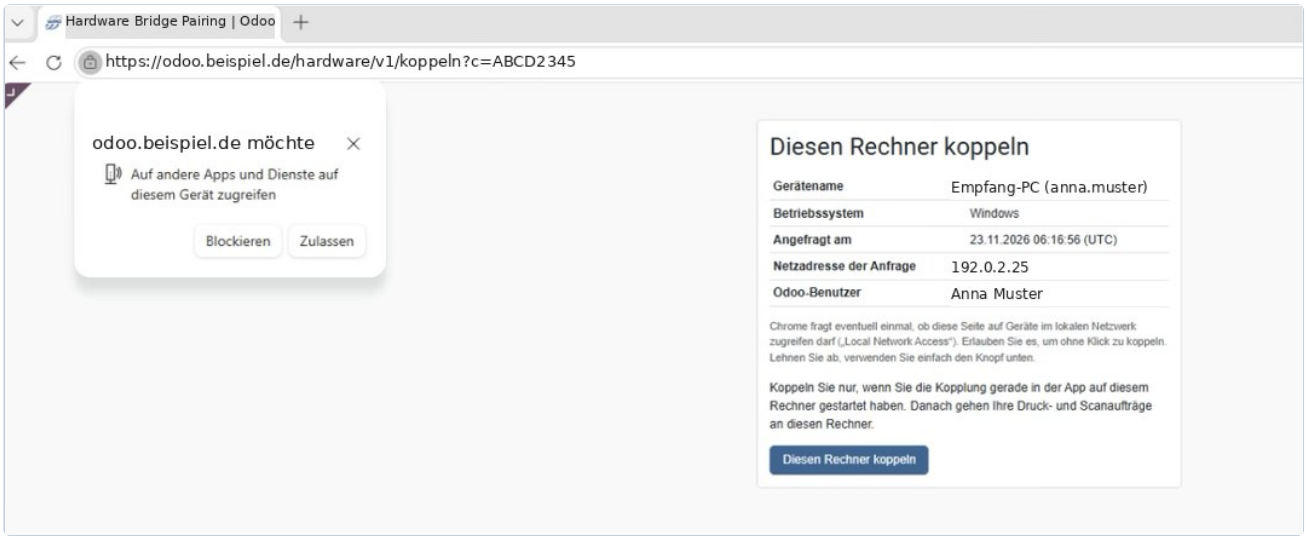
minutes and can be used exactly once.

Method A: automatic, without a click

> **Note:** Method A is finished in the Odoo module. In the Windows app it is built in and being trialled. In the Mac app it has not been checked yet (in development).

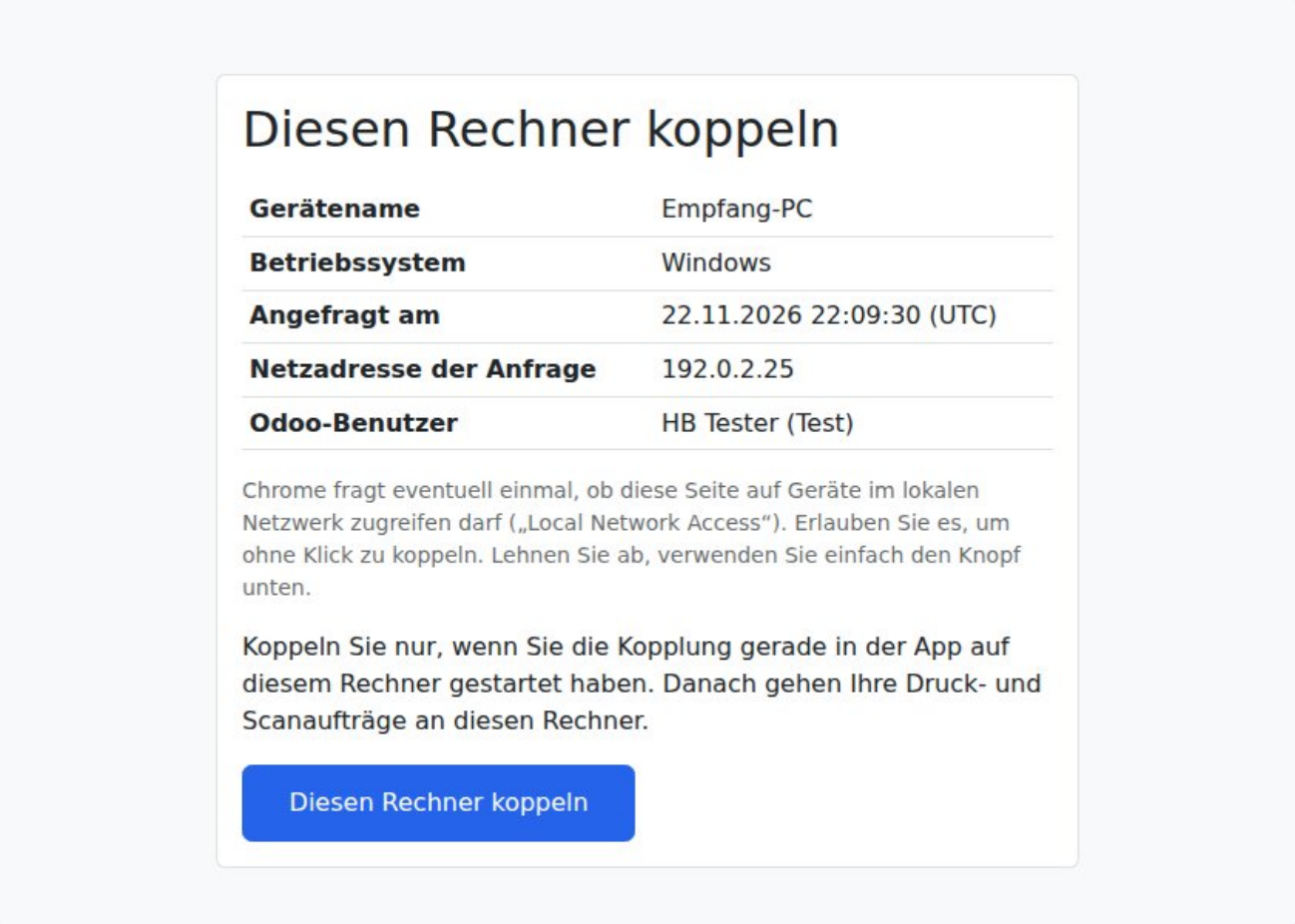
While a pairing is open, the app listens for at most ten minutes on a port on the local computer only (`127.0.0.1`, ports 47810 to 47819). The pairing page in your browser contacts this port and thereby proves that the browser and the app are running on the same computer. The computer is then paired without a click.

- **Chrome and Edge** ask the first time for each Odoo address whether the page may access devices on the local network. Allow this if you want to use the automatic method. If you decline, pairing is done with Method B.
- **Safari** blocks this access; there, pairing is always done with Method B.
- On **terminal servers** (Remote Desktop) and Macs with several users signed in at the same time, the app does not offer Method A.
- After every automatic pairing, the app shows a system notification "paired with ...", and Odoo marks the device with **Automatically paired - please check** until the owner clicks **Acknowledge**.
- Method A can be switched off with the setting `AutoPairing` (chapter 08).



Method B: link with a click

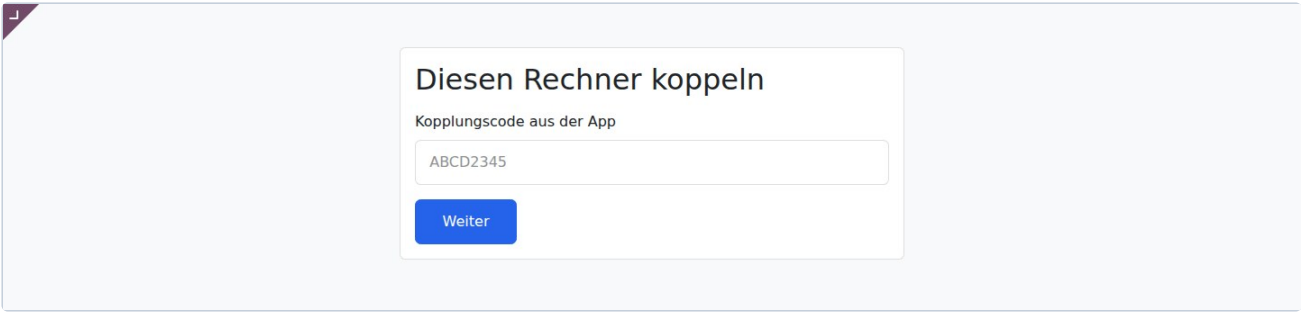
The pairing page shows the device name, operating system, time and network address of the request, and the **Pair this computer** button. Check the details and click. The click is mandatory here: it prevents someone from slipping you a link with their own code and then receiving your print jobs.



> **Status:** Method B is verified in the Mac app on a test installation; in the Windows app it is being trialled.

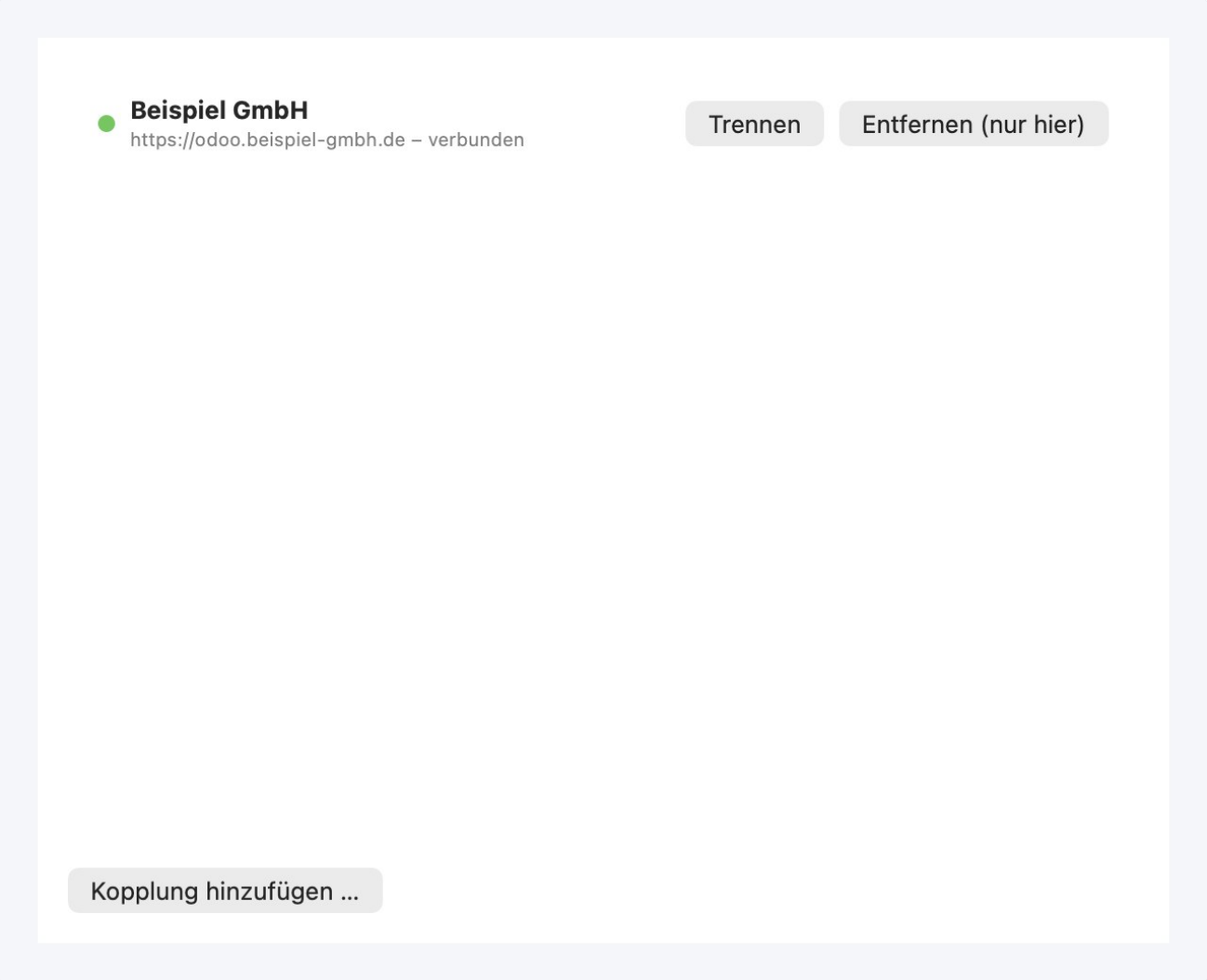
Fallback: typing the code

If no browser opens, the app shows the pairing code. In Odoo, open **Settings → Hardware Bridge → Pair Device**, type in the code and click **Continue**.



Several Odoo servers

One app can be paired with several Odoo servers, for example if a tax adviser works for several clients that each have their own Odoo. Each pairing runs on its own: its own interval, its own licence, its own errors. If one server fails, the others continue to work. In the app settings under **Pairings** you see the list with the state of each entry and can add and disconnect pairings.



Companies can specify by setting that only certain Odoo addresses may be paired (`AllowedBaseUrls`) and whether users may add further servers at all (`ManualServers`), see chapter 08.

Disconnecting

- **In Odoo:** open the device and click **Disconnect**. The owner and company administrators may do this. Afterwards the secret and all open jobs of this device are invalid; at the next retrieval the app shows "disconnected – please pair again".
- **In the app:** Settings → Pairings → **Disconnect**. The app reports the disconnection to Odoo and removes the entry. The Mac app additionally offers **Remove (here only)**: then only the entry on this Mac is deleted; in this case, also disconnect the device in Odoo.

Disconnect devices before a computer is retired or handed over to another employee.

Online display in Odoo

Every request from the app is also a sign of life. In the device list you see **Online** and **Last Seen**. If the device has not been seen for more than about one minute, Odoo immediately reports "Bridge not reachable" when printing and offers the normal browser print.

How it helps in practice: an example

Mara, accountant at "Nordwind Handels GmbH", gets a new computer. After installation, the app opens Chrome with the pairing page. Chrome asks once whether the page may access local devices; Mara allows it, and the computer is paired without any further click. In Odoo, the new device shows "Automatically

paired - please check"; Mara clicks "Acknowledge". She disconnects the old computer in the device list.

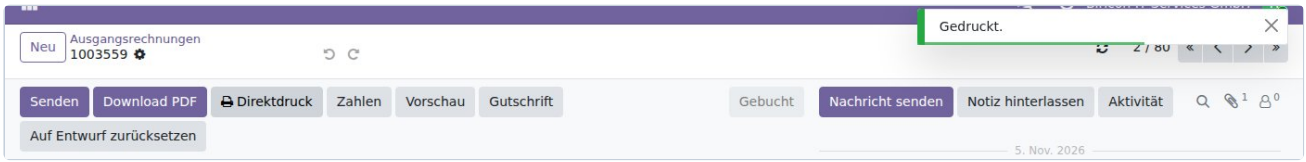
05 Printing

> **Status:** Direct printing is in productive use in the Odoo module. In the Mac app it is verified on real hardware; in the Windows app it is being trialled (silent printing tested, interaction with the taskbar app being trialled).

Direct print from Odoo

Wherever the module offers the **Direct print** button, one click is enough:

1. In the document, click **Direct print**. The button is greyed out as long as none of your devices is online.
2. If you have several devices and have not chosen a workplace yet, Odoo asks: "Which computer should receive the job?" (chapter 02, *This Workplace*).
3. Odoo shows "Print job sent to ..." and then the progress: "Waiting for the bridge ...", "Delivered to the bridge ...", "Running ...".
4. Once the job has been accepted by the computer's print system, Odoo reports "Printed." or "Printed (PDF also saved locally)."



No print dialog appears. Odoo generates the PDF with the report of the form type and with the access rights of the user who created the job.

If the app is not reachable, Odoo reports "Bridge not reachable - opening the normal browser print." and opens the usual print in the browser.

> **Note for developers:** The module provides the button as a building block for forms (`<widget name="hb_print_button" formular="rechnung"/>`) and as a service for your own extensions. The setup determines in which forms it appears. Integration into the print menu of every report is planned for version 3 (chapter 12).

Which printer?

The app chooses the printer in this order:

Rank	Source	Where set
1	Local printer for the form type, only if set	App: Settings → PDF storage, field *Printer*; registry `Print\<Formulartyp>\Printer` ; profile `Print.<Formulartyp>.Printer`
2	Printer per device	Odoo: *Printer per Device*
3	Printer per form type	Odoo: *Printers per Form Type*
4	Default printer of the computer	Operating system

Rules:

- The printer name is compared **exactly**. On Windows, network shares such as `\\server\HP 4. OG` are allowed; on the Mac, the name of the print queue (as shown by `lpstat -e`).

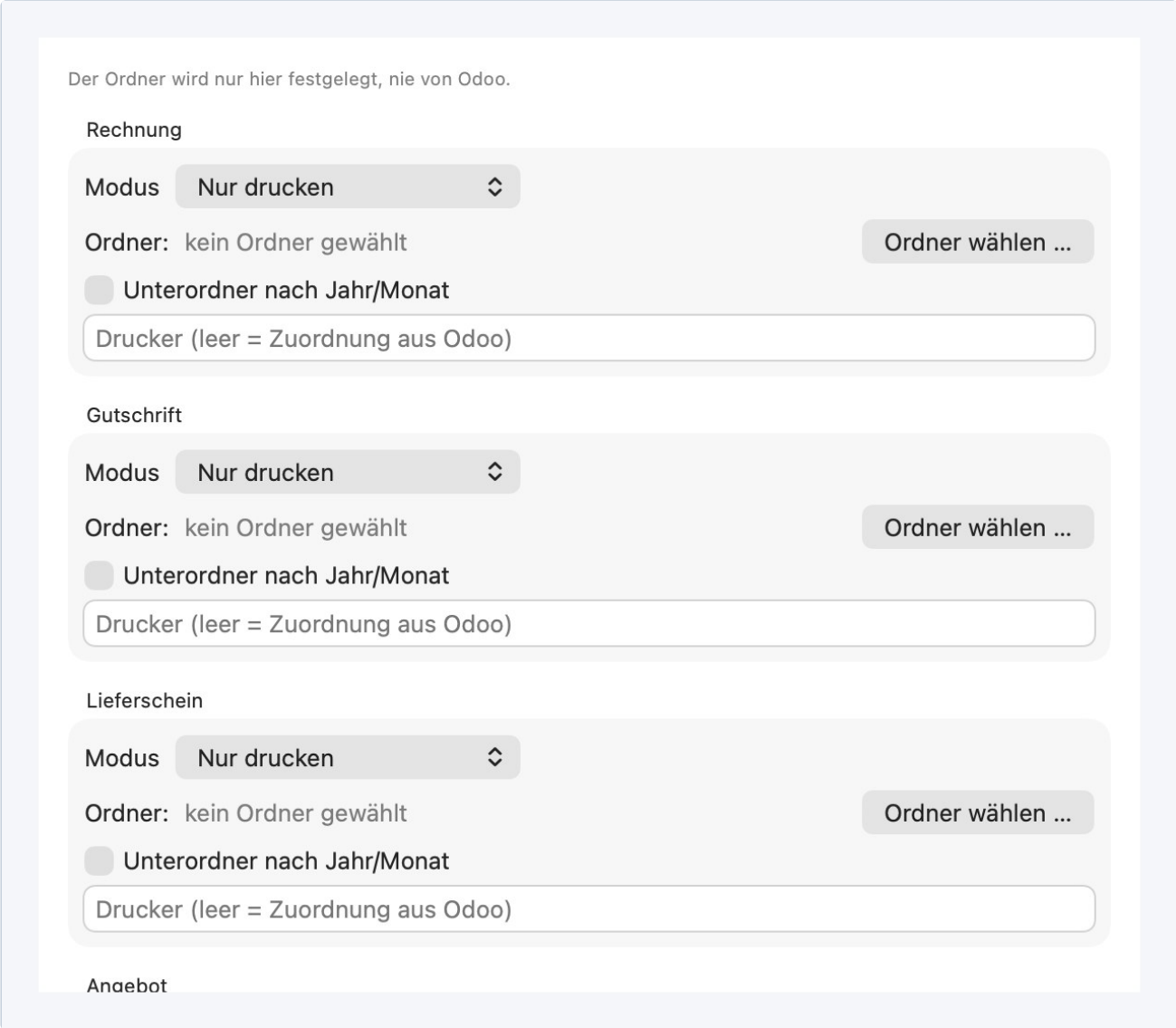
- If an assigned printer is missing on the computer, the job ends with the error "The assigned printer does not exist on this computer." The app does **not** silently fall back to the default printer. This way no invoice ends up in the warehouse by mistake.
- Double-sided printing and the number of copies come from the job.

Local PDF storage per form type

> **Status:** PDF storage is built into the Windows app and is being trialled. In the Mac app, storage in a real folder has not been checked yet (in development).

In addition to printing, the app can store every document as a PDF. You set this **in the app**, per pairing and per form type:

Mode	Effect
Print only	Default. No PDF is saved.
Print and save as PDF	The document is printed and stored as a PDF. The print is what counts: if saving fails, the job still counts as printed; the saving error is shown in the detail.
Save as PDF only	Nothing is printed, only saved.



Settings:

1. In the app, open **Settings → PDF storage**.
2. Choose the **mode** for the form type.
3. Click **Choose folder …** and select the folder in the operating system's dialog. `Dokumente\Biricon\<Formulartyp>` is suggested.
4. If you wish, switch on **Subfolder by year/month** (e.g. `2026\11`).

Rules for storage:

- **The folder never comes from Odoo.** An Odoo server cannot determine a location on your computer. Odoo only learns "saved: yes/no", never the path.
- Network drives and OneDrive folders are allowed. If the folder cannot be reached when saving, saving ends with an error, without falling back to another folder.
- The file name is the document name from Odoo, for example `RE-2026-00123.pdf`. The app removes invalid characters, shortens names that are too long and appends `(2)` if the file already exists. **Nothing is ever overwritten.**
- If there is no document name, the file is named `<Formulartyp> <JJJJ-MM-TT HH-MM-SS>.pdf`.
- The app first writes a temporary file in the target folder and then renames it. No half-written PDFs are created.
- Under **Recent files** in the app menu you see what was saved last and can open the folder.

How it helps in practice: an example

"Kanzlei Beispiel & Partner" has to store every outgoing invoice additionally on the firm's network drive. Via Group Policy, IT sets for the form type "Invoice" the mode *Print and save as PDF*, the folder `\\kanzlei-fs\Rechnungen` and subfolders by year and month. Employees click **Direct print** as usual; the invoice comes out of the printer and is stored as `RE-2026-00123.pdf` in the folder `2026\11`. In the app the setting is locked and marked "Managed by your organisation".

Printing errors

Code	Shown in Odoo	What to do
`drucker_fehlt`	The assigned printer does not exist on this computer.	Compare the printer name in Odoo or in the app exactly with the name in the operating system.
`kein_drucker`	No printer on this computer.	Set up a printer in the operating system or define a default printer.
`drucker_offline`	The printer is offline.	Switch on the printer, check the connection.
`pdf_ungueltig`	The document could not be printed (invalid PDF).	Open the document as a PDF in the browser; if the error occurs there too, it lies in the report.
`speichern_fehlt`	The PDF could not be saved (folder missing or not writable).	Check the folder, network drive and write permissions; shorten paths that are too long.
`datentraeger_voll`	The disk is full.	Free up space or choose another folder.
`abgelaufen`	Bridge not reachable	The app did not collect the job within two minutes. Is the app running? Is the icon green?
`rate`	Too many jobs for this device. Please wait a minute.	At most 60 jobs per device and minute.

All error codes are listed in chapter 11.

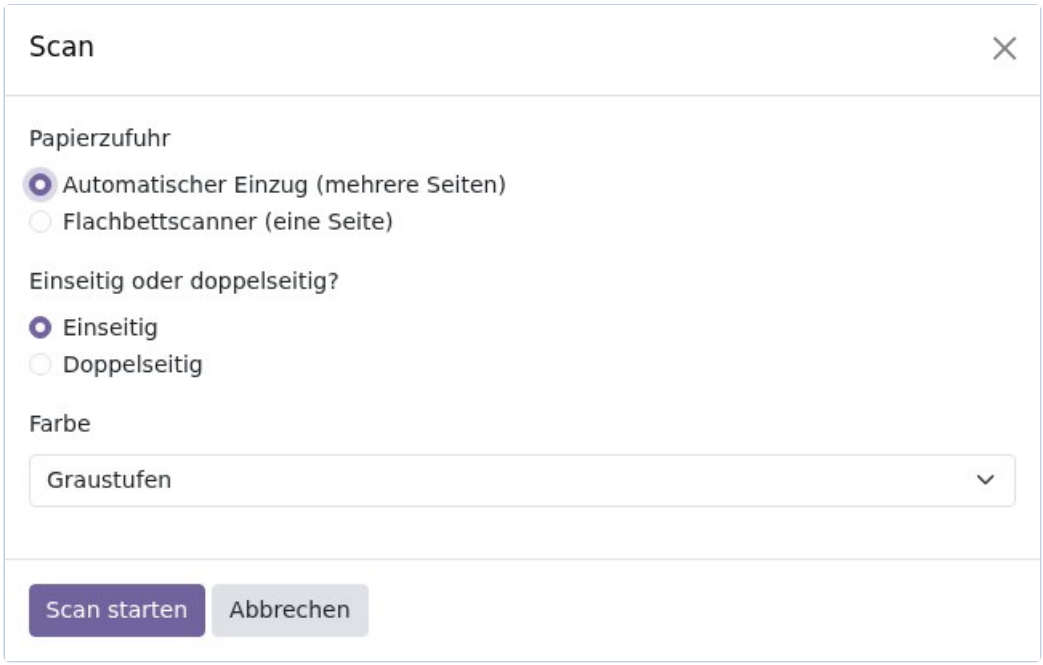
06 Scanning

> **Status:** Direct scanning is in productive use in the Odoo module. In the Mac app, scanning via the flatbed with upload is verified on real hardware; feeder, double-sided scanning and the local scan copy are in development on the Mac. In the Windows app, scanning via the feeder and double-sided has been tested on real hardware; the interaction with the taskbar app is being trialled.

Direct scan from Odoo

A scan is always stored at the place in Odoo from which you start it, for example on a document or in a document field.

1. Place the paper on the flatbed or in the feeder.
2. In Odoo, click **Direct scan**.
3. If the scanner can scan double-sided, Odoo asks: "Single-sided or double-sided?". Also choose colour or greyscale; the setting chosen last is suggested. Click **Start scan**.
4. The app does not open a window of its own. It scans, creates a multi-page PDF at 200 to 300 dpi and uploads it to Odoo.
5. Odoo reports "Scan received." and reloads the document. The PDF is now attached to the document.



The web page never sees the image data; it only learns that the scan has arrived. A scan job expires after ten minutes without a response.

Supported are scanners with a WIA driver on Windows, and on the Mac scanners that macOS addresses via ImageCaptureCore. TWAIN scanners on Windows are intended for a later version.

How it helps in practice: an example

At "Autohaus Muster KG", the customer signs the workshop order on paper. Receptionist Selin places the sheet on the flatbed, clicks **Direct scan** in the order in Odoo and chooses "Single-sided". A few seconds later the signed order is in the document as a PDF. No e-mail to herself, no download, no wrongly assigned attachment.

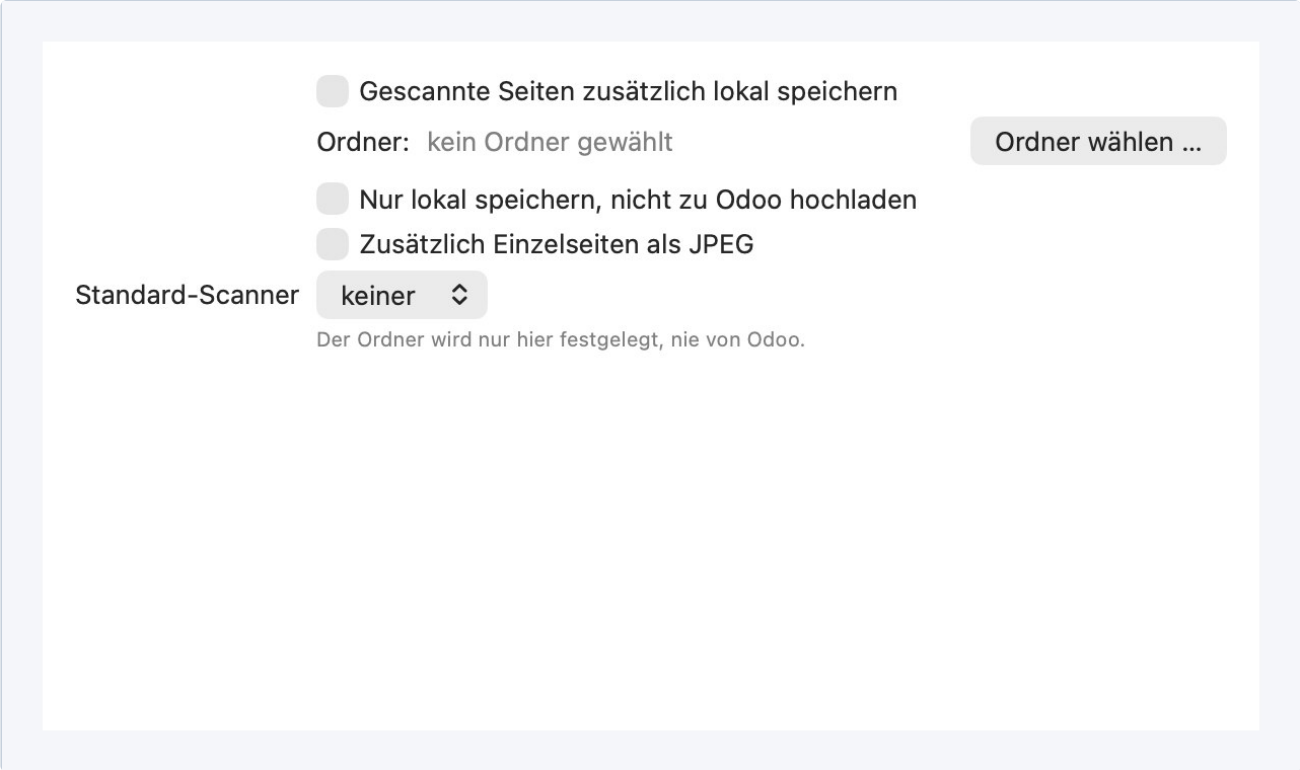
Default scanner

If several scanners are connected to a computer, you specify in the app under **Settings → Scan → Default scanner** which one is used without a selection. In the device view, Odoo sees which scanners the app has reported and whether they support feeder, double-sided scanning and flatbed.

Local scan copy

In the app under **Settings → Scan** you specify whether scanned pages are also saved locally:

Setting	Effect
Also save scanned pages locally	The app writes the finished PDF to the chosen folder**before** it uploads it. If the upload fails, the scan is not lost.
Folder	Via **Choose folder …**; suggestion `Dokumente\Biricon\Scans`, if you wish with subfolders by year and month. The folder never comes from Odoo.
Save locally only, do not upload to Odoo	The scan stays on the computer only.
Also save single pages as JPEG	Each page is additionally saved as an image.



The file name is the name from the job, otherwise `Scan_<JJJJ-MM-TT>_<hhmmss>.pdf`. Existing files are never overwritten. If local saving fails, the scan is still uploaded and the error is reported as a detail.

"Local only"

If **Save locally only** is switched on, Odoo points this out before the scan: "Scans are only saved locally on this computer, not uploaded." After the scan, Odoo shows "Scan only saved locally, not uploaded." This is neither an error nor a silent disappearance: the scan is in the chosen folder on the computer. The job list then shows **Only Saved Locally**.

This setting is suitable, for example, for workplaces where documents are deliberately not to end up in Odoo.

Scanning errors

Code	Shown in Odoo	What to do
`kein_scanner`	No supported scanner on this computer.	Switch on and connect the scanner; check whether a WIA driver (Windows) is installed or whether macOS recognises the scanner.
`scanner_belegt`	The scanner is busy.	Close other scanning programs, try again.
`scanner_fehler`	Scanner error.	Restart the scanner; check for a paper jam.
`papier_fehlt`	No paper.	Place paper in the feeder.
`zu_gross`	The scan is too large (more than 25 MB).	Choose fewer pages per scan or greyscale instead of colour. The app compresses beforehand; the limit is 25 MB.
`speichern_fehlt`	The PDF could not be saved (folder missing or not writable).	Check the folder of the scan copy.
`abgelaufen`	Bridge not reachable	The scan was not completed within ten minutes.

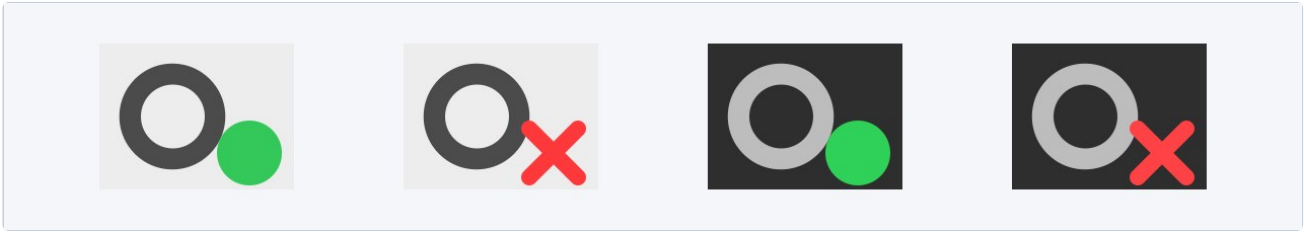
07 Taskbar and menu bar interface

The app has no main window. On Windows it runs as an icon in the **notification area of the taskbar** (bottom right), and on the Mac as an icon in the **menu bar** (top right). At first start, the setup dialog with the Odoo address and pairing opens; after that only the icon remains.

> **Status:** The Mac app interface is built; the pictures in this chapter are renderings of the windows with invented values. The taskbar interface of the Windows app (version 0.9) is built and being trialled; pictures will follow.

The icon

Display	Meaning
Green dot	All pairings are connected: the last retrieval from Odoo was successful, the licence is valid, the pairing exists.
Small red X	At least one pairing is not connected, or there is no pairing yet ("not paired").



The display changes within about five seconds after a change. If you move the mouse over the icon, the tooltip names the app name, version, the state of each pairing (e.g. "Beispiel GmbH: connected", "Muster KG: server not reachable") and the last activity.

A loss of connection does **not** produce any message windows, only the red X. One-time system notifications are shown only for licence errors, for a disconnected pairing and after every automatic pairing.

The menu

A right-click on the icon (Windows) or a click (Mac) opens the menu. The order is the same on both systems:

1. **Settings** (on Windows also by double-clicking the icon)
2. **About**
3. **Pairings**: list with state, add and disconnect
4. **Recent files**: most recently stored PDFs, open folder
5. **Print test page** and **Test scan**
6. **Open log file**
7. **Quit**

The texts appear in German or English according to the system language or the *Language* setting.

Image to follow: Windows: icon in the notification area of the taskbar with the menu open
win_tray_menue.jpg

Image to follow: Mac: open menu of the icon in the menu bar
mac_menue_menueleiste.jpg

About

The About dialog shows:

- logo, product name, version and build, manufacturer Biricon IT Services GmbH
- the **licence status per pairing**, for example "Full licence, valid until …" or "Demo, 13 days left"; from three days remaining, the notice turns yellow
- the **machine ID** with the **Copy** button (for a computer change, chapter 09)
- **Contact and support**: it@biricon.eu, phone AT +43 1 960 80 30, DE +49 30 800 982 860, UK +44 5603 87 10 36
- Biricon's websites: biricon.at, biricon.eu, ortsnetz.at, sicherheitsloesungen.com, fleet365.eu
- the trademark notice about Odoo and the privacy notice

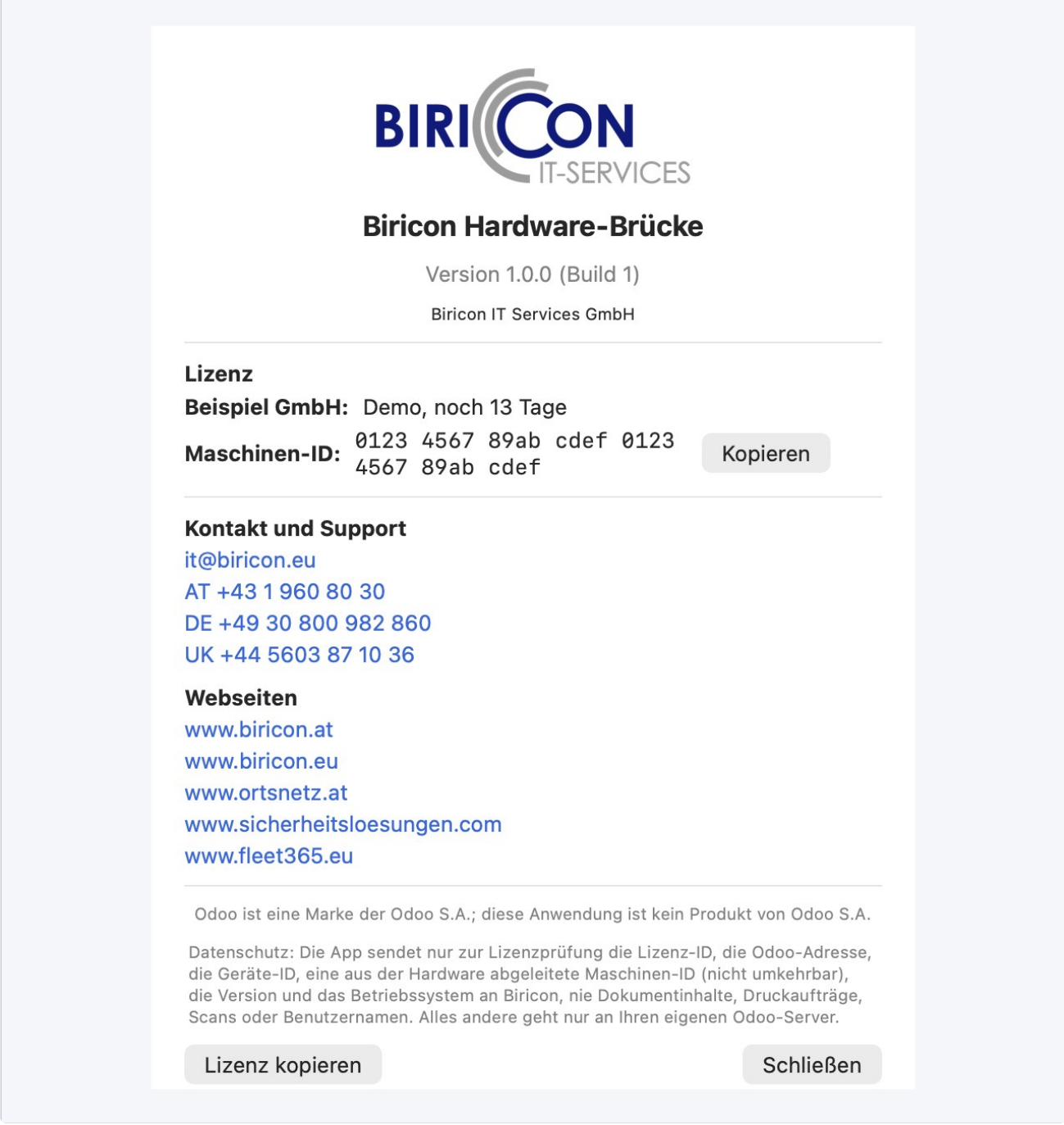


Image to follow: Windows: About dialog of the app
win_info.jpg

Copy licence places the licence ID, product, validity, number of devices, app version, operating system and Odoo address as text on the clipboard. This is useful for a request to support. The pairing secret is **never** copied.

Settings

Section	Content
General	Autostart on/off, language (automatic, German, English), notifications. The system notification after an automatic pairing always stays on.

Section	Content
Pairings	List of Odoo servers with state; add pairing, disconnect (chapter 04)
PDF storage	per form type mode, folder, subfolder by year/month, optional local printer (chapter 05)
Scan	Scan copy, folder, local only, single pages, default scanner (chapter 06)

Image to follow: Mac: Settings, General section with autostart and language
mac_einstellungen_allgemein.jpg

Values that your organisation specifies via Group Policy or configuration profile are greyed out and marked **Managed by your organisation** (chapter 08).

> **Note:** On the Mac, autostart is switched on by default and can be switched off; the function has not been fully checked there yet. On Windows, the installer sets up autostart.

Print test page and Test scan

With **Print test page** the app sends a test page to the printer, with **Test scan** it checks the scanner, without needing a job from Odoo. Both are suitable for checking after setup whether the app can reach the printer and scanner.

Log file

The app writes a log file. It never contains document contents and never secrets. The setting `LogLevel` (`error`, `info`, `debug`) controls the level of detail. For troubleshooting, temporarily set `debug` (chapter 11).

How it helps in practice: an example

Lukas from the sales team of "Muster Elektro Handels GmbH" sees a red X on the icon in the morning. The tooltip shows "Muster Elektro: server not reachable". He notices that his notebook is not on the company network, connects the VPN, and after a few seconds the dot is green again. No message window interrupted him.

08 Configuration via registry, Group Policy and configuration profile

Principle: Everything that can be set in the app settings can also be specified centrally: on Windows via the registry and Group Policy, on the Mac via a configuration profile. Specified values are locked in the app and marked **Managed by your organisation**.

> **Status:** The Windows templates (`.reg` , ADMX/ADML) have been created and automatically checked for completeness. Loading them in Group Policy Management and importing the `.reg` on a test computer are currently being trialled. The Mac app evaluates the configuration profile (verified); distribution via a device management system (MDM) has not been checked yet.

Order of precedence on Windows

Higher wins:

Rank	Location	Origin
1	`HKLM\SOFTWARE\Policies\Biricon\HardwareBridge`	Group Policy, Computer Configuration (locked)
2	`HKCU\SOFTWARE\Policies\Biricon\HardwareBridge`	Group Policy, User Configuration (locked)
3	`HKCU\SOFTWARE\Biricon\HardwareBridge`	User settings, written by the app itself
4	`HKLM\SOFTWARE\Biricon\HardwareBridge`	Installation defaults (MSI properties) or company defaults
5	–	built-in default values

Order of precedence on the Mac

Domain `com.biricon.hardwarebridge` . Higher wins:

Rank	Origin
1	Configuration profile for the device (managed, locked)
2	Configuration profile for the user (managed, locked)
3	User settings in the app
4	Installation defaults: `/Library/Preferences/com.biricon.hardwarebridge.plist`
5	built-in default values

All values

`<Formulartyp>` stands for the keys from chapter 02 (`rechnung` , `gutschrift` , `lieferschein` , `angebot` , `auftrag` , `bestellung` , `etikett` , `sonstiges` or a custom one). On Windows the subpaths are registry subkeys (`Print\rechnung`), on the Mac nested entries (`Print` → `rechnung` → `Mode`).

Value	Type (registry)	Values	Default	Meaning
`Language`	SZ	`auto` , `de` , `en`	`auto`	Interface language
`Autostart`	DWORD	0, 1	1	Start at sign-in
`UpdateCheck`	DWORD	0, 1	Windows 1, Mac 0	Ask the paired Odoo server for updates, never Biricon (function planned)

Value	Type (registry)	Values	Default	Meaning
`LogLevel`	SZ	`error` , `info` , `debug`	`info`	Level of detail of the log file, never document contents
`ProxyUrl`	SZ	Address	empty = system proxy	Proxy, e.g. `http://proxy.firma.local:8080`
`AutoPairing`	DWORD	0, 1	1	Allow pairing without a click (Method A); always off on terminal servers
`ManualServers`	DWORD	0, 1	1	User may pair further Odoo servers
`AllowedBaseUrls`	MULTI_SZ	List `https://…`	empty = all	Only these Odoo addresses may be paired
`Servers\<n>\BaseUrl`	SZ	`https://…`	–	Preconfigured Odoo server (replaces `hb-config.json`); Mac: `Servers` as a list of entries with `BaseUrl` and `Name`
`Servers\<n>\Name`	SZ	Text	–	Display name of the server
`LicenceId`	SZ	Licence ID	empty	Licence ID from the licence letter for self-activation (chapter 09)
`EnrollToken`	SZ	Token	empty	Enrolment token for self-activation (chapter 09)
`AutoActivate`	DWORD	0, 1	Mac: 1 if a server is specified; Windows: 1	Obtain the licence from the quota automatically
`Print\<Formulartyp>\Mode`	SZ	`nur_drucken` , `drucken_und_speichern` , `nur_speichern`	`nur_drucken`	PDF storage (chapter 05)
`Print\<Formulartyp>\Folder`	EXPAND_SZ	Folder	empty	Storage folder; environment variables and UNC paths allowed; Mac: `~` and `$HOME`
`Print\<Formulartyp>\SubfolderByDate`	DWORD	0, 1	0	Subfolder year/month
`Print\<Formulartyp>\Printer`	SZ	Printer name	empty = assignment from Odoo	Local printer; replaces the assignment from Odoo only if set
`Scan\Copy`	DWORD	0, 1	0	Save scan copy locally
`Scan\Folder`	EXPAND_SZ	Folder	empty	Folder of the scan copy
`Scan\OnlyLocal`	DWORD	0, 1	0	Save locally only, do not upload
`Scan\SinglePages`	DWORD	0, 1	0	Also save single pages as JPEG
`Scan\DefaultScanner`	SZ	Name	empty	Default scanner

On the Mac, switches are Boolean values (`true` / `false`) instead of 0/1.

What never belongs in the registry or the profile

The registry and the profile contain **no secrets**: no pairing secret, no key. A pairing is only created by pairing and is stored per user in the Keychain or in the Windows Credential Manager.

The only exception is the **enrolment token** `EnrollToken` . It can only take up seats of your own licence, up

to the limit and validity that Biricon has set, and it can be replaced and blocked at Biricon. This is how to handle it:

- If it comes from the installation defaults (rank 4), the app deletes the value after the first successful activation.
- If it is set via Group Policy or profile, it remains readable on the computer, because the policy keeps writing it again. Only use tokens with a short validity and few activations there.
- It never appears in the app log, and in the configuration display only as "set".

Folder settings from the registry or profile count as local settings of the computer. They do not come from Odoo.

Example registry file (Windows)

Biricon supplies `Biricon-HardwareBridge.reg` with comments. It writes the user settings (rank 3) and is intended for trying out on test computers. For company defaults, replace `HKEY_CURRENT_USER` with `HKEY_LOCAL_MACHINE` (rank 4); enforced values are better distributed via Group Policy. Excerpt (without the encoding of the multi-string and path values):

```
[HKEY_CURRENT_USER\SOFTWARE\Biricon\HardwareBridge]
"Language"="auto"
"Autostart"=dword:00000001
"LogLevel"="info"
"AutoPairing"=dword:00000001
"ManualServers"=dword:00000001

[HKEY_CURRENT_USER\SOFTWARE\Biricon\HardwareBridge\Servers\1]
"BaseUrl"="https://odoo.firma.de"
"Name"="Firma Hauptsitz"

[HKEY_CURRENT_USER\SOFTWARE\Biricon\HardwareBridge\Print\rechnung]
"Mode"="drucken_und_speichern"
"SubfolderByDate"=dword:00000001

[HKEY_CURRENT_USER\SOFTWARE\Biricon\HardwareBridge\Print\lieferschein]
"Mode"="nur_drucken"

[HKEY_CURRENT_USER\SOFTWARE\Biricon\HardwareBridge\Scan]
"Copy"=dword:00000000
"OnlyLocal"=dword:00000000
```

`Folder` values are of type EXPAND_SZ (e.g. `%USERPROFILE%\Documents\Biricon\Rechnung`), `AllowedBaseUrls` of type MULTI_SZ. In the example file they are already encoded correctly.

Group Policy templates (ADMX/ADML)

Scope of delivery:

File	Destination
`BiriconHardwareBridge.admx`	`PolicyDefinitions` (locally `C:\Windows\PolicyDefinitions` or in the domain's central store)
`de-DE\BiriconHardwareBridge.adml`	`PolicyDefinitions\de-DE`
`en-US\BiriconHardwareBridge.adml`	`PolicyDefinitions\en-US`

In Group Policy Management you find the policies under *Computer Configuration* or *User Configuration* → *Administrative Templates* → *Biricon* → *Hardware Bridge*, organised into **General**, **Odoo servers and pairing**, **PDF storage when printing** and **Scan** (21 policies). Computer Configuration writes rank 1, User Configuration rank 2.

Image to follow: Group Policy Management with the policies under Administrative Templates, Biricon, Hardware Bridge

win_gpo.jpg

Group	Policies
General	Application language · Start with Windows sign-in · Check for updates · Log level · Proxy server
Odoo servers and pairing	Allow automatic pairing via the browser · Users may add further Odoo servers · Allowed Odoo addresses · Predefined Odoo server 1 to 3
PDF storage when printing	PDF storage: Invoice, Credit note, Delivery note, Quotation, Order confirmation, Purchase order, Label, Other (each with mode, folder, subfolder, printer)
Scan	Also save scanned pages locally (with folder, local only, single pages) · Default scanner

Limits of the template: at most three preconfigured servers, PDF storage only for the eight fixed form types. You set further servers or form types directly via the registry (`Servers\<n>` , `Print\<Formulartyp>`). `LicenceId` , `EnrollToken` and `AutoActivate` are currently not included in the ADMX template; they are set via MSI property or registry.

MSI properties

The properties `BASEURL` , `AUTOSTART` , `LANGUAGE` , `LICENCEID` , `ENROLLTOKEN` and `AUTOACTIVATE` write installation defaults to `HKLM\SOFTWARE\Biricon\HardwareBridge` (rank 4), or to the user branch for a per-user installation. Details in chapter 03.

Configuration profile (Mac)

Biricon supplies a commented example profile `Biricon-HardwareBridge.mobileconfig` . It sets managed settings of the domain `com.biricon.hardwarebridge` with the same keys as above. Excerpt:

```
 <key>Language</key><string>de</string>
<key>AutoPairing</key><true/>
<key>ManualServers</key><false/>
<key>AllowedBaseUrls</key>
<array><string>https://odoo.beispiel.de</string></array>
<key>Servers</key>
<array><dict>
  <key>BaseUrl</key><string>https://odoo.beispiel.de</string>
  <key>Name</key><string>Beispiel GmbH</string>
</dict></array>
<key>AutoActivate</key><true/>
<key>Print</key>
<dict>
  <key>rechnung</key>
  <dict>
    <key>Mode</key><string>drucken_und_speichern</string>
    <key>Folder</key><string>~/Documents/Biricon/Rechnung</string>
    <key>SubfolderByDate</key><true/>
  </dict>
</dict>
<key>Scan</key>
<dict>
  <key>Copy</key><true/>
  <key>Folder</key><string>~/Documents/Biricon/Scans</string>
</dict>
```

Distribution: via your device management system (MDM) as custom settings with this content. For trying it out on a single Mac: double-click the profile, then install it in *System Settings → Privacy & Security → Profiles*. Replace the placeholders (identifiers, addresses) beforehand. Network drives as folders only work

if the Mac has mounted them. The printer name is the name of the queue (`lpstat -e`).

Image to follow: Mac: installed Odoo Print & Scan profile in System Settings, Privacy & Security, Profiles
mac_profil_systemeinstellungen.jpg

For testing, individual values at user level can also be set in Terminal, for example `defaults write com.biricon.hardwarebridge LogLevel debug` (`defaults delete ...` resets it).

Checking the effective configuration

With `--show-config` , both apps show which value applies and where it comes from. Example from a Mac with the example profile (shortened; the current test version prints this output in German):

```
 Wirksame Konfiguration (Domain com.biricon.hardwarebridge); höchster Rang gewinnt: verwaltet > Benutzer > Installation > Standard

Language              de                      Profil (Gerät, verwaltet)  [gesperrt]
AutoPairing           1                       Profil (Gerät, verwaltet)  [gesperrt]
ManualServers           0                       Profil (Gerät, verwaltet)  [gesperrt]
AllowedBaseUrls       https://odoo.beispiel.de   Profil (Gerät, verwaltet)  [gesperrt]
Print.rechnung.Mode     drucken_und_speichern      Profil (Gerät, verwaltet)  [gesperrt]
Scan.Copy             1                       Profil (Gerät, verwaltet)  [gesperrt]
```

On Windows: `Biricon-HardwareBridge.exe --show-config` . In both cases `EnrollToken` only appears as "set" (German: „gesetzt“).

How it helps in practice: an example

The IT department of "Nordwind Handels GmbH" wants all computers to be paired only with the company's own Odoo, and delivery slips in the warehouse never to be saved locally. It copies the ADMX files to the central policy store, enables "Allowed Odoo addresses" under *Computer Configuration* with `https://odoo.nordwind.de` , disables "Users may add further Odoo servers" and sets the mode "Print only" for "PDF storage: Delivery note". With `--show-config` it checks on a warehouse computer that all three values come from the policy.

09 Licences

This chapter describes the licence from the point of view of users and IT: what the app shows, what to do about messages, how a computer change works and how the licence reaches the computers without manual work when the app is distributed to many computers.

> **Status:** The licence check is built in both apps. In the Mac app, it is verified together with self-activation against a test installation; in the Windows app, it has been tested against a test licence server.

How the licence works

- A licence applies to the **address of your Odoo server** and to a certain **number of computers** (quota).
- Each computer takes up one seat. It is recognised by its **machine ID**, an irreversible identifier derived from the hardware. If several users use the same computer, it still takes up only one seat.
- The app checks the licence with Biricon's licence server **at start and then once a day**. The response is signed by Biricon; the app verifies the signature itself.
- If the licence server is temporarily not reachable, the app continues to work with the last confirmed licence for **up to five days**, but never beyond the end of the licence.
- Without a valid licence, the app does not carry out any jobs. Odoo then shows, for example, "No licence for the hardware bridge." or "The hardware bridge licence has expired."

Licence status in the app

You see the status of each pairing in the **About** dialog (chapter 07) and in the icon's tooltip:

Display	Meaning
Full licence, valid until …	Licence valid
Demo, N days left	Demo licence with remaining term; from three days remaining, the notice turns yellow
no licence yet	The app has not received a licence yet, for example before the first activation

Demo licence

For trying it out, Biricon issues a demo licence for a short period and a few computers. The app shows "Demo, N days left". At the end of the demo, use ends without a period of grace. A demo can be converted into a full version; the licence ID stays the same, and nothing needs to be done on the computers.

Messages and what to do

App message	Meaning	What to do
licence expired	The licence has ended.	Request a renewal from Biricon, e.g. in the customer portal (below).
licence check missing (grace period over)	The licence server was not reachable for more than five days.	Check internet access, proxy and firewall: the app must be able to reach `https://www.biricon.eu`.
licence server not reachable	Temporarily no connection; the app continues to work within the grace period.	Nothing, as long as it does not last longer. Otherwise as above.
no valid licence	There is no licence for this Odoo address.	Contact Biricon.

App message	Meaning	What to do
Odoo address not licensed / licence belongs to another Odoo address	The app is paired with an address for which the licence does not apply.	Check the pairing address (exactly the licensed `https://` address).
licence device limit reached / No free seat in the quota	All seats are taken.	Have an old computer released or extend the quota (Biricon).
licence revoked	Biricon has blocked the licence.	Contact Biricon.
check this PC's clock / check this Mac's clock	The computer's clock deviates considerably.	Correct the computer's date, time and time zone.
licence response invalid	The licence server's response could not be verified, for example because a proxy changed it.	Set up a proxy exception for `https://www.biricon.eu`; otherwise contact support.

Computer change

The licence is bound to the computer. If a computer is replaced, Windows is reinstalled or a system is cloned, the machine ID changes. On the Mac, it changes when the logic board is replaced. Cloned virtual machines share the same machine ID until they are prepared with `sysprep`; two such clones count as one computer.

If the app detects that the licence belongs to a different computer, it shows:

> “The licence is bound to a different computer. Please renew the licence with Biricon.”

Below it is the computer's **machine ID** with the **Copy** button. Proceed as follows:

1. Click **Copy** (the ID has 32 characters; it is displayed in groups of four and copied without spaces).
2. Write to it@biricon.eu stating which computer was replaced, and paste the new machine ID.
3. Biricon transfers the licence to the new computer. The app then checks again at the next start or after one day at the latest, and the status is valid again.

A certain number of transfers is included per licence and calendar year; the customer portal shows, for example, "0 of 1 transfer this year". Further transfers are possible by arrangement.

On the Mac, the command line option `--machine-id` also shows the machine ID.

Distribution with a quota: self-activation

If you distribute the app to many computers, you do not have to type anything on each computer. If the Odoo address is specified via MSI property, registry or configuration profile (chapters 03 and 08), the app asks the licence server at first start whether a seat in the quota is free for this address, obtains the licence itself and stores it locally.

- This is controlled with `AutoActivate` (default: on if a server is specified).
- Depending on the agreement, your licence additionally requires for self-activation the **licence ID** from the licence letter (`LicenceId` or MSI property `LICENCEID`) or an **enrolment token** that Biricon gives you for the rollout (`EnrollToken` or `ENROLLTOKEN`). Without this information, self-activation may be switched off for your licence; the app then reports "self-activation is off for this licence".
- If no seat is free, the app shows "No free seat in the quota. Please contact Biricon." and tries again at most every six hours and at every start.
- If the licence server is not reachable at the first activation, the app keeps trying at increasing intervals. Without a first licence it does not work.
- The licence is then stored on Windows per user under `%LOCALAPPDATA%\Biricon\HardwareBridge\licence.json`, on the Mac under `/Library/Application Support/Biricon/HardwareBridge/` or in the user's home folder. The file contains only the signed response, no secret.

The licence does not replace pairing: each user still pairs the app once with Odoo (chapter 04).

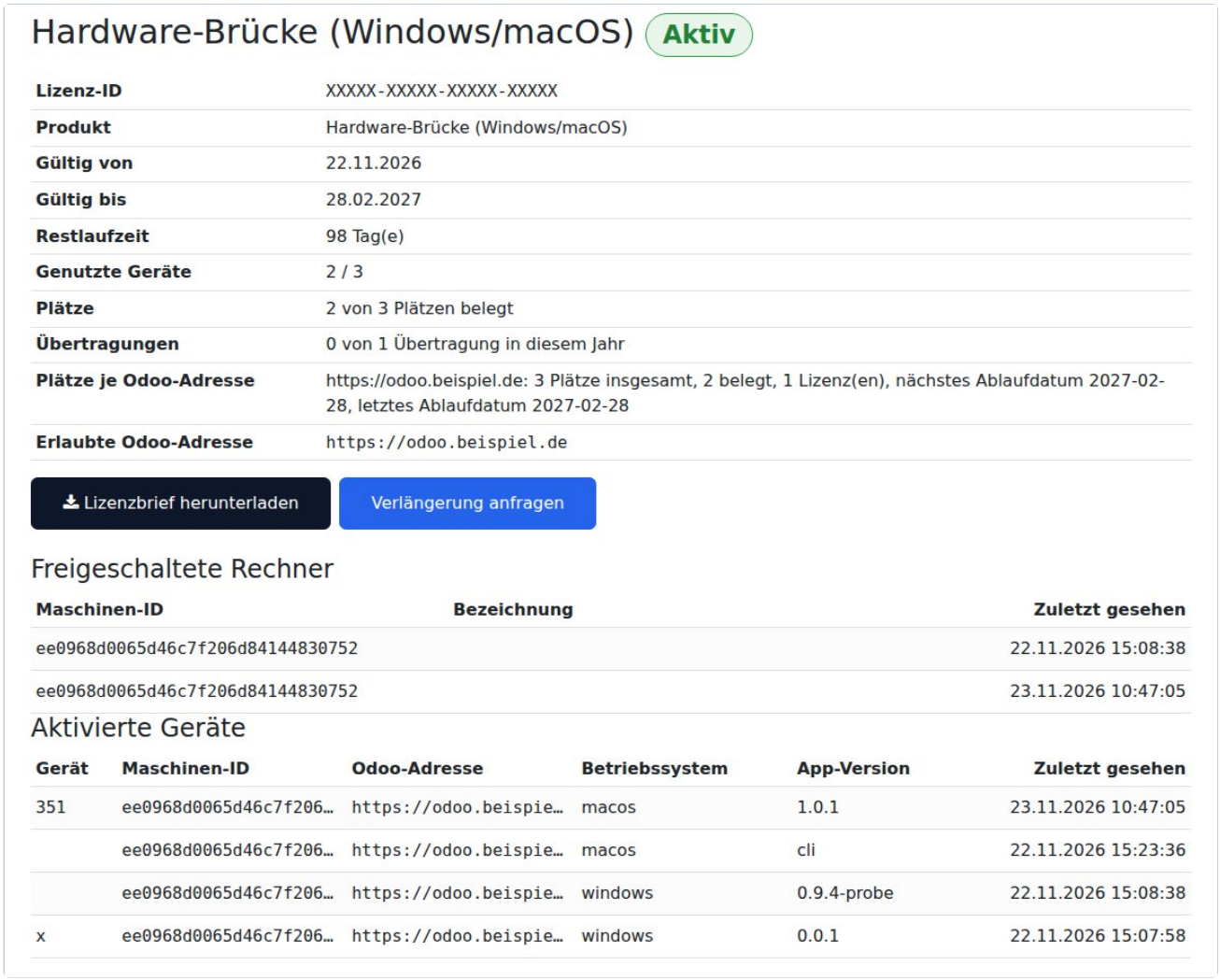
How it helps in practice: an example

"Muster Elektro Handels GmbH" has a licence for 15 computers. IT distributes the MSI with `BASEURL` and `LICENCEID` to 12 computers. Each computer takes its seat at first start; the customer portal then shows "12 of 15". When a notebook in the warehouse fails and is replaced, the app on the new device reports the machine ID; IT sends it to Biricon, and the licence is transferred.

Your licences in the customer portal

In Biricon's customer portal, under **My Licences**, you find all licences of your company:

- product, licence ID, status (for demos with remaining term), valid from/until
- used and permitted seats, the permitted Odoo address
- the activated computers with device ID, operating system, app version and "last seen"
- the number of transfers this year
- the **licence letter** as a text file for download
- the buttons **Request renewal** and **Request full version**



A request in the portal does not trigger an automatic e-mail; Biricon will get in touch with you.

10 Security and data protection

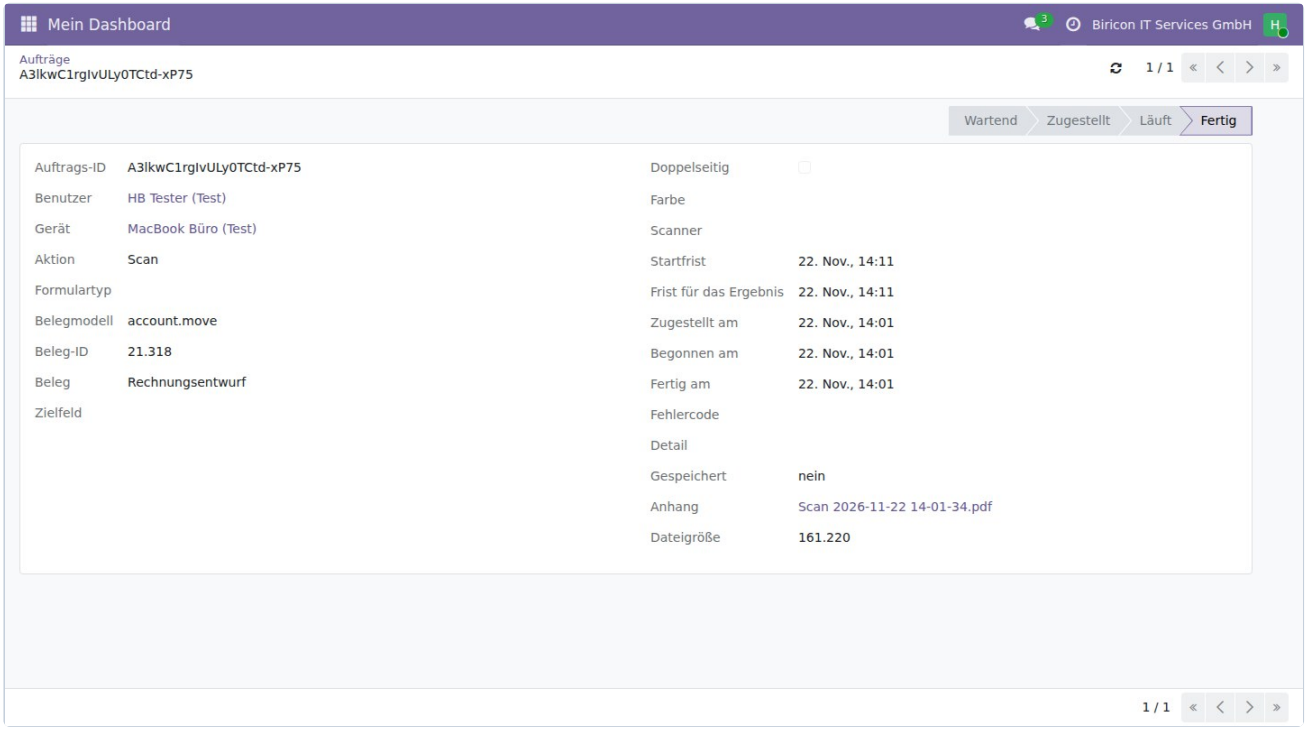
An app that accepts jobs from a server, prints and writes files must be tightly restricted. This chapter summarises the protective measures and the data flows.

Basic rules

- **No incoming connections.** In normal operation the app does not open a network port. All connections go from the app to your Odoo server or to the licence server. Exception: during pairing without a click (Method A), the app listens for at most ten minutes, only on `127.0.0.1` (chapter 04).
- **HTTPS only, with certificate verification.** The app checks every server certificate against the system's certificate store. The check cannot be switched off. The Mac app does not follow redirects to other addresses.
- **Signed requests.** Every request from the app to Odoo carries an HMAC-SHA256 signature over time, nonce, method, path and content. Odoo rejects requests whose time deviates by more than two minutes or whose nonce has already been used.
- **Never paths or commands from the server.** A job only contains "print this PDF" or "scan", plus form type, document name, printer, copies and double-sided. Odoo cannot specify folders, programs or other addresses. The callback address of a job must belong to the paired Odoo address; otherwise the app rejects the job.
- **Short-lived jobs.** A print job must start within two minutes and is delivered exactly once. After a restart, the app does not print old jobs retroactively.
- **Rights from Odoo.** Jobs only go to your own devices or to devices shared by the company administrator, and only for documents that the user may read (print) or change (scan). At most 60 jobs per device and minute.

What is stored where

What	Where	Note
Pairing secret (app)	Mac: Keychain; Windows: Credential Manager, per user	never in files, registry, log or clipboard
Pairing secret (Odoo)	Database, encrypted with AES-256-GCM	key outside the database (chapter 02); sent in plain text to the app exactly once
Licence	`licence.json` in the user profile or under `/Library/Application Support/…`	only the signed response, no secret
Settings	Registry or preferences/profile	no secrets except the restricted enrolment token (chapter 08)
App log	Log file	without document contents and secrets
Job log in Odoo	*Settings → Hardware Bridge → Jobs*	user, device, type, document, result, "saved yes/no"; never contents, never local paths



Pairing without a click: additional rules

- The local port answers only two requests (sign of life and pairing) and never gives out the pairing code.
- It only answers a page that comes from the Odoo address with which pairing is currently taking place.
- After five wrong attempts, the app closes the port for this pairing.
- On terminal servers and with several users signed in at the same time, there is no automatic method.
- After every automatic pairing, the app and Odoo show a notice.

Recommendations for companies

- Set `AllowedBaseUrls` to your own Odoo address and switch off `ManualServers`, so that computers are only paired with your Odoo.
- On shared computers, switch off `AutoPairing`; pairing is then only done with a click or code.
- Disconnect devices in Odoo before a computer is retired or passed on.
- Back up the key for the device secrets (chapter 02) separately from the database.

Data protection

Documents, print jobs and scans only travel between the computer and your own Odoo server. They do not pass through Biricon or any third party. The app does not send usage statistics or crash reports.

Only the licence check goes to Biricon, at start and once a day, as well as during self-activation:

Item	Purpose
Licence ID	which licence is checked
Address of your Odoo server	the licence applies to this address
Device ID of the pairing	assignment to the pairing
Machine ID (derived from the hardware, irreversible, product-specific)	binding to the computer; the raw hardware value never leaves the computer
App version and operating system	support and compatibility

Item	Purpose
Random number	protection against replaying old responses
for self-activation, the enrolment token if applicable	authorisation for activation

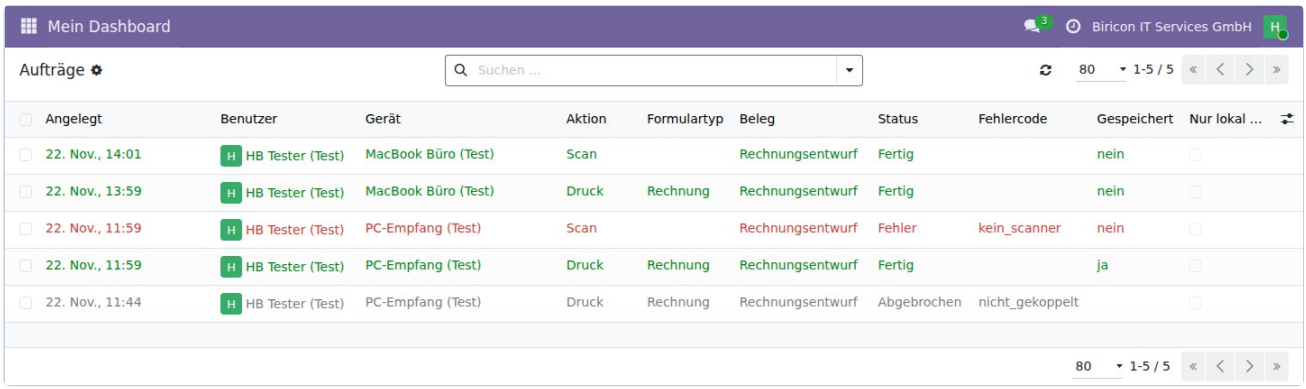
Document contents, print jobs, scans, file names, local paths or user names are never transmitted. The licence server does not store IP addresses in its database; the web server's access logs may contain them.

> **Note:** This information describes the technology. It is not legal advice. For your privacy notice and a record of processing activities, please consult your legal adviser; Biricon provides a description of the data flows on request.

11 Troubleshooting

First steps

1. **Look at the icon.** Green dot: the app is connected. Red X: move the mouse over the icon; the tooltip names the state of each pairing (for example "server not reachable", "disconnected – please pair again", "check this PC's clock").
2. **Check the device in Odoo.** Under *Settings → Hardware Bridge → Devices*: is the device **Online**, when was it **last seen**, is it **disconnected**?
3. **Check the job in Odoo.** Under *Jobs* you find the status, **error code** and **detail** of each job.
4. **Print test page / Test scan** in the app menu: do the printer and scanner work independently of Odoo?
5. **Check the configuration** with `--show-config` (chapter 08): does a value unexpectedly come from a policy?
6. **Log** with *Open log file*; for troubleshooting, temporarily set `LogLevel` to `debug`.



Job error codes

The app reports these codes as the result of a job. Odoo shows the text in the middle column for each.

Code	Shown in Odoo	Meaning and remedy
`nicht_gekoppelt`	The job failed.	The app is not (or no longer) paired for this server. Pair again (chapter 04).
`lizenz_fehlt`	No licence for the hardware bridge.	No valid licence for this Odoo address (chapter 09).
`lizenz_abgelaufen`	The hardware bridge licence has expired.	Request a renewal.
`lizenz_grenze`	Too many devices for the hardware bridge licence.	Release a seat or extend the quota.
`lizenz_server_nicht_erreichbar`	The licence server is not reachable.	Check the connection to `https://www.biricon.eu` (proxy, firewall).
`lizenz_pruefung_fehlt`	The licence could not be checked for too long.	Grace period of five days is over; establish a connection to the licence server.
`zeit`	The job failed.	The computer's clock deviates too much; the app shows "check this PC's clock". Correct the time and time zone.
`kein_drucker`	No printer on this computer.	Set up a printer in the operating system.
`drucker_fehlt`	The assigned printer does not exist on this computer.	Compare the printer name exactly (chapter 05).

Code	Shown in Odoo	Meaning and remedy
drucker_offline	The printer is offline.	Switch on the printer, check the connection.
pdf_ungueltig	The document could not be printed (invalid PDF).	Check the report in the browser.
speichern_fehlt	The PDF could not be saved (folder missing or not writable).	Check the folder, write permissions, network drive and path length.
datentraeger_voll	The disk is full.	Free up space.
kein_scanner	No supported scanner on this computer.	Switch on the scanner; check the driver (WIA or macOS).
scanner_belegt	The scanner is busy.	Close other scanning programs.
scanner_fehler	Scanner error.	Restart the scanner, check for a paper jam.
papier_fehlt	No paper.	Insert paper.
abgebrochen	Cancelled.	The job was cancelled in Odoo.
abgelaufen	Bridge not reachable	The app did not collect the job in time (print: two minutes) or did not complete it (scan: ten minutes). Is the app running?
zu_gross	The scan is too large (more than 25 MB).	Fewer pages or greyscale.
intern	The job failed.	Unexpected error; send the app log and the job detail to support.

For each error the app can report a **detail**, for example "path too long". It never contains document contents.

Odoo messages when creating a job

Display	Meaning
Bridge not reachable	The device has not been online for more than about one minute. Odoo opens the normal browser print.
Please choose a device first.	You have several devices and have not chosen a workplace.
You cannot use this device.	The device belongs to another user and has not been shared with you.
You are not allowed to access this document.	You do not have the right to access the document.
The document does not exist (anymore).	The document has been deleted.
This form type cannot be printed directly.	No report is assigned to the form type.
Too many jobs for this device. Please wait a minute.	More than 60 jobs in one minute.
Session expired. Please reload the page.	The Odoo session has expired.

App sign-in to Odoo

If Odoo rejects a request from the app, the app shows the state in the icon:

Cause	App display	Remedy
Clock deviates by more than two minutes	check this PC's clock / check this Mac's clock	The app compensates for the deviation once by itself. If the message remains, correct the time and time zone.
Device disconnected in Odoo	disconnected – please pair again	Pair again (chapter 04).
Signature or nonce invalid	Connection error in the tooltip	If this happens repeatedly, a proxy may be altering the requests. Set up a proxy exception for the Odoo address; otherwise contact support.

Licence messages

The licence messages and what to do about them are described in chapter 09. On a computer change, the app always shows:

Language	Text
German	„Die Lizenz ist an einen anderen Rechner gebunden. Bitte erneuern Sie die Lizenz bei Biricon.“
English	“The licence is bound to a different computer. Please renew the licence with Biricon.”

Below it is the machine ID with **Copy**. Send it to it@biricon.eu.

Common cases

The "Direct print" button is greyed out. None of your devices is online. Is the app running? Is it paired with this Odoo? Is the right device chosen as *This Workplace*?

Printing happens on the wrong printer. Check the order of precedence in chapter 05: a locally set printer (app, registry, profile) takes precedence over *Printer per Device*, which takes precedence over *Printers per Form Type*.

Pairing without a click never works. In Safari this is normal; there, pairing is always done with a click. In Chrome or Edge, check whether local network access was declined for the Odoo address (site settings), whether `AutoPairing` is switched off or whether it is a terminal server.

The scan does not arrive in Odoo, but there is no error either. Is **Save locally only** switched on? Then the scan is in the chosen folder and Odoo shows "Scan only saved locally, not uploaded."

After moving Odoo to a new server, all devices report "disconnected". The key for the device secrets was not moved along (chapter 02). Pair all devices again.

What to send to support

- the text from **About → Copy licence** (contains no secret),
- the code and detail of the job from Odoo,
- the app log file (contains no document contents),
- the output of `--show-config`.

Contact: it@biricon.eu, phone AT +43 1 960 80 30, DE +49 30 800 982 860, UK +44 5603 87 10 36.

12 New in protocol 2.3: queue, print options, labels, scan preview and text recognition

> **Status: 29 November 2026.** This chapter describes features that arrive with the Odoo module from version 19.0.1.9.1 and the new app releases (macOS 1.1.3, Windows 0.9.15). The "Status" notes in the table say honestly what is delivered today and what still follows. **All server-side features are switched off as delivered**; an administrator switches them on one by one (*Settings → Technical → System parameters*, key `biricon_hardware_bridge.<name>` , value `1`). An app that cannot do a feature simply does not notice it.

Overview: what applies where

Feature	Server switch	macOS 1.1.3	Windows	Note
Queue (jobs wait up to 14 days, retry on printer errors)	`queue`	yes	from 0.9.15	Protection against double printing through the job number and a local journal in the app
Print options: tray, size, orientation, scaling	–	yes (A4, A5, A6, Letter)	from 0.9.15	Tray and size are not yet verified on every real printer
Label printing (ZPL, ESC/POS) from label templates	`rohdruck`	ZPL	from 0.9.15 (ZPL, ESC/POS)	Not yet verified on a real label printer
Print rules (document and condition decide printer, tray, copies)	`regeln`	– (server side)	– (server side)	New rules start as a dry run
Print station (computer without a signed-in user, as a service)	`stationen`	**not included** (planned)	from 0.9.15, separate installation package	One computer uses one licence seat
Scan preview: reorder, rotate, delete pages before sending	–	yes	from 0.9.15	Not on terminal servers on Windows
Edit pages afterwards in Odoo	`scan_bearbeiten`	–	–	In the Odoo scan inbox
Searchable PDF (text recognition on the computer)	–	yes (Apple Vision)	from 0.9.15 (Windows text recognition)	Server-side text recognition only if `ocrmypdf` and Tesseract are installed (`ocr`)
Recognise delivery notes and compare with the goods receipt	add-on module	**not included**	**not included**	The "Odoo Scan" app for Android can submit delivery notes
AI recognition in the inbox	`posteingang_ki` , `ki_warteschlange`	–	–	**Option, off by default**; only with an AI module installed

Windows 0.9.14 is the version made available at the moment. The Windows features marked "from 0.9.15" are in the source code but not yet delivered as an installer.

Queue and protection against double printing

A job with a validity period (for example from a print rule) stays **waiting** for up to 14 days, even when the computer is off. If the printer reports "offline", "out of paper" or "tray missing", Odoo Print & Scan retries

after 1, 2, 4 … minutes (at most 1 hour apart, at most 3 attempts, never beyond the validity period). Every step is in the job's **journal** (time, state, error code, never the content of the document). The same job number on the same device never creates a second job. The app also keeps a local job journal: a known job is never printed again, not even after a crash or a repeated delivery.

Print options

A job can specify tray, size (A4, A5, Letter, or width × height in millimetres), orientation (automatic, portrait, landscape) and scaling (fit or original size). The app reports for each printer which trays and sizes it knows. If something does not fit, it reports `papierfach_fehlt` or `format_fehlt` and does not print.

Label printing (ZPL, ESC/POS)

Hardware Bridge → Label templates: text in the printer language with placeholders (field values of the document in double curly braces), for example `^XA^FO50,50^A0N,40,40^FD<Text>^FS^XZ`. "Try on record" shows the result without printing. Standard sizes are 100×150, 100×100, 100×50, 76×51, 62×29, 57×32, 50×25 and 40×30 mm. The server and the apps block dangerous commands that would reconfigure the printer or store files on it (for example `^JU`, `^ID`, `^CC`, `~DY`); field text stays free. **Note:** the interaction with a real label printer has not been verified for every printer type; test one label before using it in production.

Print rules

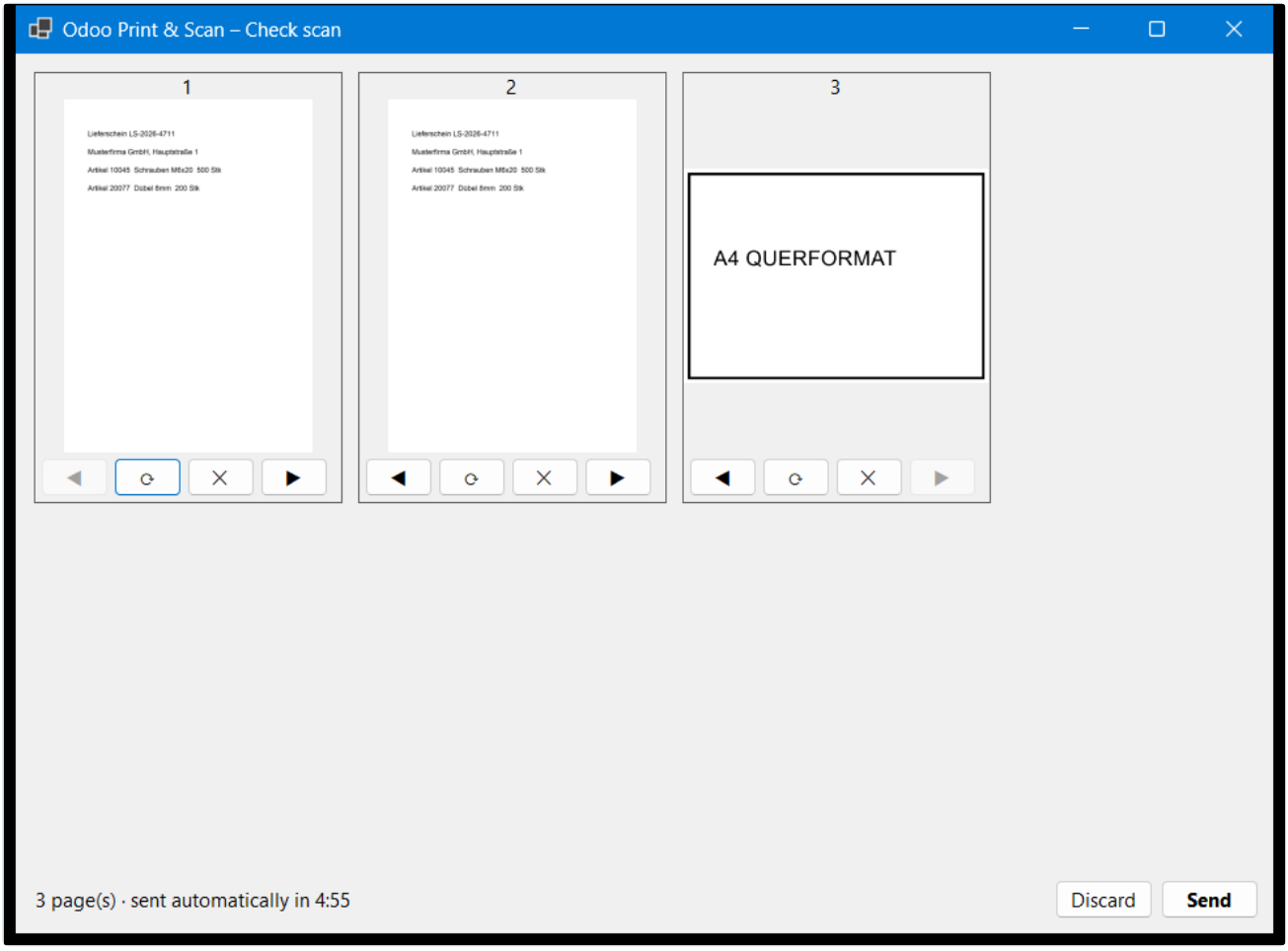
Hardware Bridge → Print rules. A new rule is **switched off** and a **dry run**: it only writes to the log what it would have printed. Only "Print for real" lets it create real jobs. Triggers are *by hand* (the user prints as usual, the rule decides printer, tray and copies), *invoice posted* and *call* from an automated action. At most one print per document and rule. The condition is an Odoo domain; it is only read, never executed.

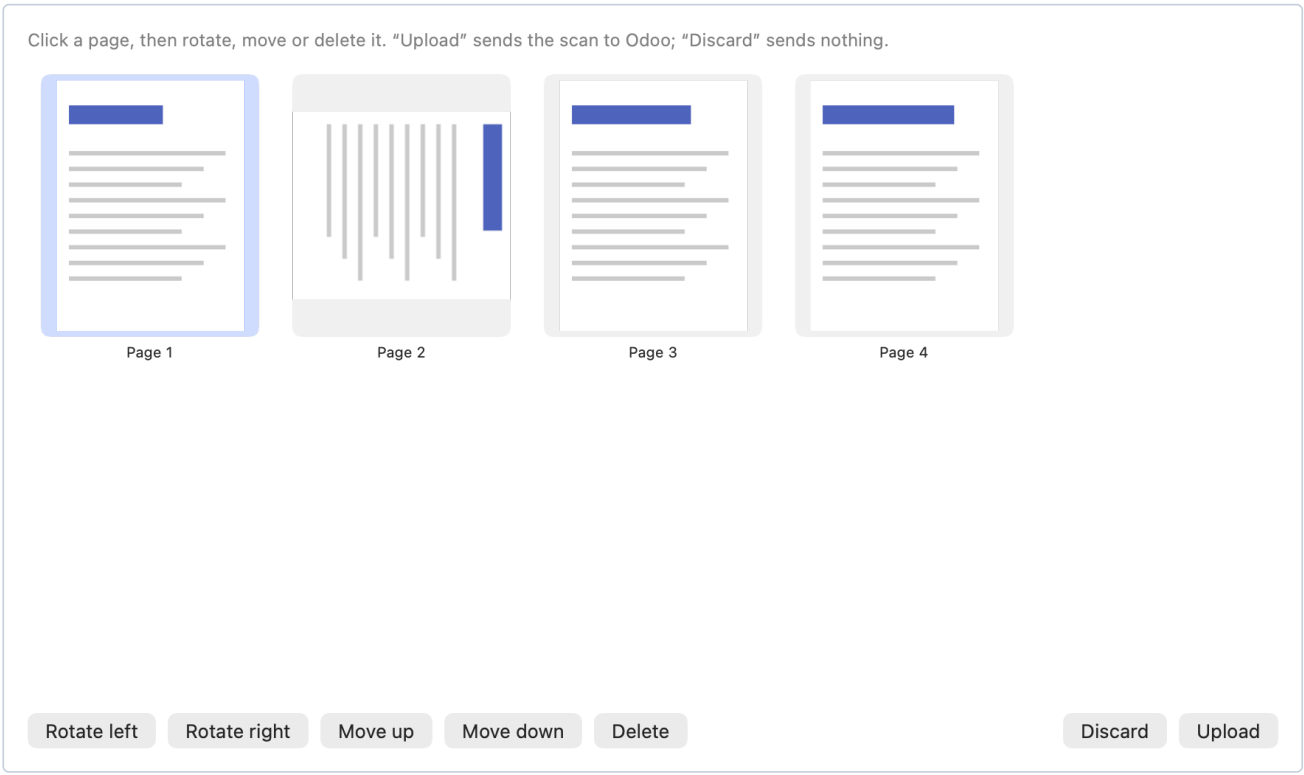
Print station

Hardware Bridge → Print stations: a paired computer in service mode with its printers under a name the rules choose (for example "Label warehouse"). The Windows print station runs as a Windows service without a signed-in user and is set up by IT with an installation package carrying the Odoo address and a rollout key. **It does not exist for macOS yet.**

Scan preview and searchable PDF

After the scan the app shows all pages. You can change the order, rotate pages by 90° and delete them. "Send" transfers the scan to Odoo, "Discard" cancels; on discard, when the window is closed, or after a waiting time without input the scan is either sent unchanged (Windows, 5 minutes) or nothing is uploaded (macOS, 8 minutes). Text recognition runs **on your own computer**; the recognised text is added invisibly to the PDF so you can search for it in Odoo. If recognition fails, a normal PDF is sent. On Windows both can be switched off by group policy (`Scan\Preview`, `Scan\Ocr`).





Editing pages afterwards in Odoo

Scan inbox → entry → "Edit pages": order by handle, "Rotate", "Delete", then "Apply". Posted invoices keep their file. The file is only replaced if it has not changed since you opened it.

Delivery note and AI recognition (option)

A scanned delivery note can be compared with the open goods receipt: the add-on module shows "recognised" against "expected" and marks differences. Items are matched by EAN, article number and similar description; ambiguous matches are marked and never guessed. Transfer happens only through a confirmed button, the goods receipt is never validated automatically, and nothing goes to suppliers. Automatic recognition by AI is an **option that is off by default**; it runs in a queue in the background and needs an installed AI module. Personal data goes to the configured AI service in that case; a notice text and a "confidential" switch per document are provided for this.

Scan apps for Android and iOS

The "Odoo Scan" apps for Android and iOS are free for the Odoo community. They obtain a free licence on first start; for that the app sends a random device ID and the app version to Biricon's licence server (to count installations). Document contents only go to your own Odoo. The apps are not yet available in the stores.

13 Outlook: version 3

> **Status:** Version 3 is **in development**. Several components are built, but not yet in productive use. This chapter describes the planned functions; scope and order may still change. There are no commitments to dates.

Principles

- **Compatible:** Older apps continue to work unchanged with a version 3 server, and new apps with older servers. New functions are negotiated between app and server and only apply if both sides support them.
- **Same security model:** Still no paths, folders, network addresses or commands from the server, no local port in normal operation, signed requests. In addition, Odoo signs its responses to the app, so that a proxy cannot alter them unnoticed.
- **Never print twice:** Better "result unclear, please check" than a second printout.
- **No silent fallback printer:** Falling back only within explicitly set-up printer pools, and always with a message.

Planned functions

Printing

- **Print rules** instead of only "printer per form type": by user, team, company, warehouse or location, operation type and report, with order of precedence, exceptions per record and a simulator "Why does it print there?".
- **Automatic printing** on events, for example when confirming a delivery, posting an invoice or sending an invoice by e-mail, as well as printing from automations without an open browser.
- **Print stations, locations and printer pools:** A user on a tablet prints on the printer at their location; a pool falls back to another printer in case of failure.
- **Operation without a signed-in user** (Windows service, on the Mac a background service) for print stations.
- **Batches and bulk printing:** several documents in one job, selected documents from lists, attachments from the chatter.
- **Queue** for automatic jobs during short network outages instead of expiry.
- **Direct print in the print menu** of every report, with the prompt "Where to print?" and a preview.
- **Print options:** paper tray, format, orientation, scaling, page range.
- **Network printers without a driver** (IPP, RAW) and **labels** in the ZPL printer format.

Scanning

- **Scan as draft** with thumbnails: rotate, crop, reorder and delete pages, add further pages, and only then accept.
- **Scan buttons** in fields, in the chatter and when entering vendor bills.
- **Network scanners without a driver** (eSCL/AirScan).
- Later: scan profiles, image enhancement and text recognition (in the app, not on the server), splitting batches by barcode.

Operation

- **Print journal** without document contents; reports per user are off by default.
- **Diagnostics** and help with errors directly in the app.
- **Linux and Raspberry Pi agent** for print and scan stations, for example in the warehouse.

Odoo Online and Odoo.sh

Version 3 also requires its own Odoo module. This is not possible on **Odoo Online**. On **Odoo.sh** it can be used, on small plans with an adjusted polling interval. On your own servers there is no restriction.

Note on reports

Reports on who prints or scans how much can count as monitoring of performance and behaviour and then require the co-determination of the works council in Austria and Germany. This is why they are switched off by default. This note is not legal advice.

How it helps in practice: an example (planned)

In the warehouse of "Muster Elektro Handels GmbH", every confirmed delivery slip is in future to be printed automatically on the packing station printer, even if the warehouse worker confirms the delivery on a tablet. With version 3, a print rule "Delivery slip, Warehouse North → Pool Packing Station" and automatic printing on confirmation will be set up for this; the station runs as a service without a signed-in user. Until then, the warehouse worker prints with one click on **Direct print**.

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