

WOMS — the company server

Guide for IT

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Hans Tandt

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What WOMS needs from IT

WOMS is a Windows desktop program. For a team, every PC runs the same WOMS.exe and connects to one PostgreSQL database on a company server. There is no web server and no extra service: the PCs talk to PostgreSQL directly (port 5432). People log in to WOMS with their own WOMS user ID; the program itself uses one database account (woms_app).

NOTE — Preview in V3.1.1

The server part is tested on PostgreSQL 16 (all tests, two PCs at once, the built program) but not yet accepted on a real company server. Try it with a test server first (section 6).

1. What you need

- PostgreSQL 14 or newer (Windows or Linux server, a virtual machine or a NAS that runs PostgreSQL).
- Disk: a few hundred MB per year (photos and files are stored in the database).
- The PCs reach the server on TCP 5432 inside the company network only.

2. The database and the account

Run as the PostgreSQL superuser (psql -U postgres), with a strong password of your own:

```
CREATE ROLE woms_app LOGIN PASSWORD 'choose-a-long-password';
CREATE DATABASE woms OWNER woms_app ENCODING 'UTF8' TEMPLATE template0;
```

woms_app owns the database: WOMS makes its tables at the first start and upgrades them when a newer WOMS arrives (a copy of the server is saved on that PC first).

3. Network and security

- postgresql.conf: listen_addresses = '*' (or the server's address), ssl = on with a certificate.
- pg_hba.conf: only the company network, only this database and this account (below).
- Firewall: 5432 open for the company network only, never to the internet.

```
hostssl woms woms_app 10.0.0.0/8 scram-sha-256
```

pg_hba.conf — adapt the network to yours.

TRAP — The password on the PCs

The password of woms_app is stored on each PC encrypted with Windows (DPAPI) for the Windows user who entered it. Someone with administrator rights on a PC could still recover it: keep the server on the internal network.

4. Backups — IT's job

WOMS makes its own daily backups only for a local file. On the server, plan a nightly dump and keep at least 30 days:

```
pg_dump -U woms_app -Fc woms > woms_YYYY-MM-DD.dump
```

Test a restore once:

```
createdb -U postgres -O woms_app woms_restore
pg_restore -U postgres -d woms_restore woms_YYYY-MM-DD.dump
```

A WOMS administrator can also save a copy of the whole database into a file:
Administration → Save a copy of the database....

5. Each PC

1. Unzip the WOMS release (Desktop or Documents, not Program Files) and start WOMS.exe.
2. Settings → Folders → Where is the database? → Company server: server, port 5432, database woms, account woms_app, the password, SSL. Click Test the connection, then Save.
3. The first PC on an empty database: WOMS makes the tables and asks for the first administrator — or Move this PC's database to the server... copies an existing local WOMS database (everything, photos and files included; the local file is kept as woms_moved.db).
4. All PCs must run the same WOMS version: an older WOMS is refused by a newer database with “update WOMS on this PC”.

6. A test server on one PC

To try WOMS before a real server is ready, install PostgreSQL on one PC:

```
winget install PostgreSQL.PostgreSQL.16
```

The installer asks for the postgres password. Then run the two lines of section 2 in SQL Shell (psql), and in WOMS use server localhost, port 5432, database woms, account woms_app.

7. Many PCs at the same time — what WOMS does

- Two people change the same record: the second one is told it was changed by someone else and sees the new version (row versions).
- Work-order numbers are never given twice; a stock never counts wrong (row locks).
- The minute jobs (maintenance plans, “over the limit” messages) run on one PC at a time (a PostgreSQL advisory lock).
- An administrator who disables a person logs that person out within a minute.