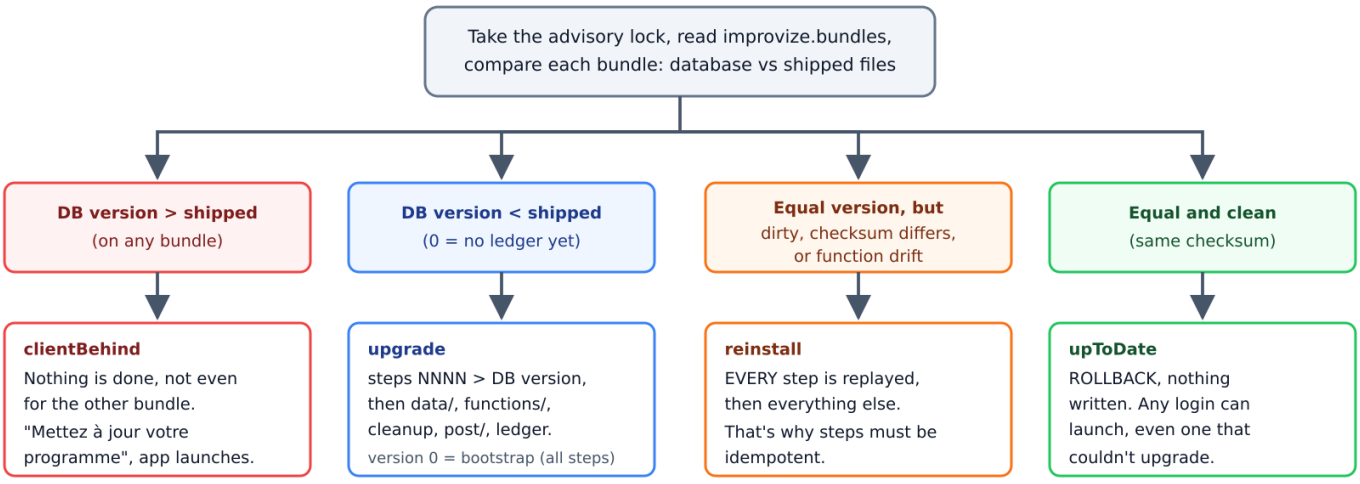
At launch: the connect rule and its messages

What `Sage.exe` does with the bundles at each launch (`TDM.ApplyBundles` → `RunConnectRule` in `catBundleUpgrade.pas`), and how to read what went wrong.

Startup sequence

1. Read the parameters (`srv= owner= user= pwd= db=`, plus `sqlroot=` and `dev=1`), connect as the login.
2. Licence check.
3. **Connect rule**, one transaction: wait for the advisory lock (another PC may be upgrading: splash with *Annuler*, gives up after 5 minutes), read the ledger, decide, apply.
4. Write the legacy stamp `config.lastversiondbupdate` (only after *upToDate/upgraded*, never lowered).
5. Open the datasets, as the plain login.

The connect rule: what Sage.exe decides at launch



Roles

- `<owner>` (e.g. `izowner`): owns the tables. Steps, `data/` and `post/` run as this role.

- `<owner>_ddl`: owns the managed functions and the ledger, so an old exe running as `<owner>` can no longer drop or overwrite them. `functions/` runs as this role.
- Created per server by `common/roles/ddl-roles.sql` (operator, see `common/roles/RUNBOOK.md`); rerun it when a new login is added, or that login gets *refused* as soon as there is work to do.

Messages and what they mean

Result	Cause	Fix
clientBehind "Quelqu'un de votre équipe utilise une version plus récente..."	The database has a higher bundle version than this exe ships.	Update the exe. On a test DB: lower `version` in `improvize.bundles`.
refused `noddlrole` / `notddlmember`	`<owner>_ddl` is missing, or the login isn't a member.	Run `ddl-roles.sql` on the server.
refused `ownersuperuser`	The owner role is a superuser (e.g. `owner=cat` locally).	Use a non-superuser owner role.
failed "L'installation de Le Sage est incomplète : réinstallez le programme."	A bundle folder is missing under `sqlroot` (default: the exe's folder).	Reinstall, or fix `sqlroot=`.
failed "cette base n'est pas une base Le Sage"	Step 0001's precondition raised `IZ001`: empty or non-Le Sage database.	Wrong `db=`; empty databases come from `lesage/makedb/` only.
failed `foreignowner` (repair query shown, with *Copier*)	A managed function is owned by someone other than `<owner>` / `<owner>_ddl`.	Run the shown `ALTER FUNCTION … OWNER TO` as superuser.
failed with a file and line	An SQL error in that bundle file. Everything was rolled back.	Fix the file (next version if it was released).
failed lock wait	Another PC held the upgrade lock for more than 5 minutes.	Retry; check `pg_stat_activity` (`application_name` = `lesage-delphi 13.000.xx (login@PC)`).

On *refused* and *failed* the user can choose *Lancer quand même* (runs with whatever the database has, some functions may fail) or *Quitter* (default).

Inspecting a database

```
SELECT bundle, version, checksum, dirty, appliedat, appliedby FROM improvize.bundles;
SELECT bundle, fromversion, toversion, kind, appliedat, appliedby
  FROM improvize.bundlehistory ORDER BY id DESC LIMIT 20;   -- kind: upgrade | reinstall |
reload
```

Compare a checksum with the files: `npm run check -- manifest ../lesage/sql` (in `common/`) prints the per-file manifest and the bundle checksum.

Revision #2
Created 2026-11-18 14:55:40 UTC by Claude-Aida
Updated 2026-11-18 14:55:41 UTC by Claude-Aida