



Document	Product Operation Guide	Release	17/08/26 V1.0
Project	BRN WMS	Project code	200-WMS-26-001-00
Project period	05/01/26–24/08/26		

Objective

Guide a System Administrator through installing, configuring, operating, monitoring, backing up, and recovering BRN WMS, so operation is consistent, correct, and quickly recoverable.

1. Deployment options

BRN WMS supports two deployment paths, evidenced in the repository:

Path	Mechanism	Reference
Manual installation	One-shot database setup script	setup.php
Containerized deployment	Docker Compose stack: php-apache, mariadb, node/pm2	docker-compose.yml, docker/

2. Containerized installation (recommended)

1. Copy `.env.example` to `.env`, or run the interactive generator: `docker/init-env.sh` (prompts for DB password, public host, `EMIT_SECRET`, and SMTP credentials; auto-generates secrets left blank).
2. Run `docker compose up -d --build`. This brings up:

- php-apache — the PHP 8+ web application (`docker/php/`), with `app/config.php` generated from `.env` at container start by `docker/php/entrypoint.sh` — never baked into the image or committed. - mariadb — the database service, initialized from `docker/mariadb/init-wms2.sql` and `setup.php`. - node — the Node.js real-time/scheduler service (`docker/node/`), managed by pm2 (`nodejs/ecosystem.config.js`).

1. Confirm the application is reachable at the configured public host and that the Node.js service is running (Section 5).

3. Manual installation

1. Provision a PHP 8+ / MariaDB / Node.js environment.
2. Configure `app/config.php` (database credentials for the `wms` and `wms2` databases, `NODE_PUBLIC_URL`, `NODE_EMIT_URL`, `NODE_EMIT_SECRET`, SMTP).
3. Run `setup.php` once to create the database schema (see Software Requirements Specification, SR08, for the full table list).

4. Start the Node.js services (`nodejs/server.js`, `nodejs/scheduler.js`), for example under `pm2` using `nodejs/ecosystem.config.js`.

4. Configuration

Item	Location	Notes
Application configuration	<code>app/config.php</code>	Generated at deploy time; never committed
Environment secrets	<code>.env</code> (Docker) or shell/deployment environment (manual)	Excluded via <code>.gitignore</code>
Company-level settings	In-application (<code>app/setting/</code>)	Per-company profile, SMTP, system settings
Time zone	<code>\$time_zone</code> in <code>app/config.php</code>	Fixed to Asia/Bangkok

5. Monitoring

- Web application: confirm the PHP application responds and users can authenticate.
- Database: confirm both `wms` and `wms2` databases are reachable.
- Node.js service: confirm `server.js` (Socket.IO) and `scheduler.js` (scheduled jobs) are running under `pm2`; review `nodejs/logs/` (`socket.log`, `scheduler.log`, `scheduler-error.log`) for errors.
- Scheduled jobs: confirm stock/GL aggregate maintenance and low-stock/overdue-invoice alert jobs are completing on schedule without duplication.

6. Backup and recovery

Item	Mechanism	Status
Source code and configuration templates	Git, two remotes (<code>origin</code> , <code>backup</code>)	See Project Repository / Project Repository (Backup), work products 9–10
Database (<code>wms</code> , <code>wms2</code>)	Scheduled <code>mysqldump</code> script, run daily, output stored off-server with a retention policy	Operated and verified manually by the Developer; a restoration has been performed successfully. Because backup operation is manual, the script location, exact schedule, off-server destination, and retention period are not recorded in a controlled configuration reference — see Section 7
SDLC documents	External PDF export package	See Project Repository (Backup), Section 3

7. Outstanding operational gaps

ID	Gap	Owner	Required before
OP-001	A daily mysqldump backup for wms/wms2 is operated manually and restoration has been verified. Its script location, exact schedule, off-server destination, and retention period are still not recorded in a controlled reference.	Developer	Documentation improvement; does not block acceptance (NFR-004)
OP-002	No documented monitoring/alerting for the Node.js service beyond log files.	Developer	Operational acceptance

8. User and access management

An Owner/Admin manages users, roles (Owner/Admin/Staff/Viewer), and application-access flags from Settings (app/setting/). Role changes take effect on the user's next authenticated action; concurrent-session policy blocks a second simultaneous login on the same account.

Approval

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