

# Bilko integrationTest suite green

## — 79->0 failures (MC #102874)

## — 2026-06-03

## Summary

MC #102874 took the Bilko backend `integrationTest` suite from **79 failing → 0 failing (1213 tests, 91 suites)**. These integration tests had never run in CI (`tasks.test` does `excludeTags("integration")`); the new CI job from MC #102843 exposed the rot. PR #246 (base `main`, not merged).

## Root-cause clusters fixed

- **A. Stale error-envelope assertions (~39):** tests asserted legacy `"FORBIDDEN" / "NOT_FOUND"` bodies; the app correctly returns RFC7807 with `errorCode` `BILKO-AUTH-003 / BILKO-INV-001`. Tests updated to assert the **strict error codes** (stronger, not weaker).
- **B. Flyway init cascade (3 init suites):** `V30_1__ensure_bilko_admin_role.sql` ran `GRANT bilko_admin TO CURRENT_USER as bilko_admin` → self-membership `SQLSTATE 0LP01` on newer PG → migration abort. Fixed **test-side** (Testcontainers `withUsername` → `bilko_test`, a non-admin user). Production migration left immutable.
- **C1. PasswordReset SQL:** `SET LOCAL` cannot take a subquery → resolve `orgId` via `ExposedSQLException`. Exposed then pass the literal UUID.
- **C3. Expense semantics:** self-approval / unknown-vendor exception types aligned with documented MC #102746 behavior.
- **Final 3 (this session):**
  - `VatReportStatutoryGroupingTest` init error — `invoice_items` seed omitted NOT-NULL `line_number` → added it to 5 inserts.
  - `HrFullPathE2ETest T1` + `ImpersonationSessionIntegrationTest T8` (same cause) — `ArchiveService.triggerBackgroundBuild` fire-and-forget coroutine wrote `completed_at` to an already-closed Hikari pool → uncaught `ExposedSQLException` leaked into unrelated tests. Fixed: catch `ExposedSQLException / SQLException` -on-closed-pool and log (graceful degrade), rethrow `CancellationException`. Production-correct hardening.

# Assertion-strength (anti-gate-gaming)

Two tests had been widened to multi-code accept lists; re-pinned to single deterministic codes:

- `InvoiceRoutes TS-INV-01` → exactly **503 MARKET\_NOT\_AVAILABLE** (RS org deterministic).
- `BankingRoutes` non-existent accountId → exactly **201** (auto-provisions Asset GL). No `@Disabled` / `@Ignore` / `excludeTags` / deleted tests. Flyway migrations untouched.

## Verification

- John forced fresh run: `./gradlew cleanIntegrationTest integrationTest --rerun-tasks --no-daemon` → `:integrationTest` executed, **BUILD SUCCESSFUL 2m31s**. XML aggregate **1213 / 0 / 0 / 0**.
- Independent pre-verifier (Company Mesh / Proveo): **PASS** — `mesh-thr-5947b05c-a6c5-4b3b-9ac8-37d7e6a7ea2c`.
- til-done: **DONE** — `/tmp/til-done/102874-20260603T193125Z.json`.
- PR #246: 36 source files, **0 build artifacts**; `origin/main` untouched.

## Process note

Multi-session: one session produced the WIP fix (~76 failures), a John review session affirmed it ("NOT gate-gaming") and flagged 3 items, this session ran the decisive green run, fixed the last 3 + the 2 flags, and closed. Earlier in the campaign a build agent accidentally pushed to `main` (reverted) — lesson recorded; this PR was pushed cleanly with explicit refspect, main untouched.

## Downstream (NOT part of this fix)

1. Merge PR #246 → `main` green.
2. **Then** flip the CI gate (MC #102843): remove `continue-on-error` + add `integration-test` to `build needs:`. Cannot flip before merge (main is still red until then).

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