EXECUTION DOCUMENT — Monday.com Field Mapping Wizard (Phase 1)

Updated: 2025-12-19

1. Purpose

Build an admin/manager wizard that maps internal schema fields to Monday.com columns across any boards. The wizard is a mandatory gate: routing remains locked until mapping validates.

2. Entry / Trigger Conditions

- Monday.com connected for the first time
- Any required internal field missing a mapping
- Previously mapped Monday columns changed/removed/renamed/type-changed
- Admin adds/removes internal fields (schema changed; includes Core removals)
- Admin manually resets mapping

3. Functional Flow

1 Load full Monday inventory: boards and columns (tree view).

2 Load internal fields registry (Core + Custom). Note: admin can remove any internal fields including Core.

3 Wizard UI: for each internal field select (Board → Column) from the tree (search/filter).

4 Validate: required fields mapped + type compatibility + sample normalization.

5 Preview: show normalized sample rows and highlight conversion errors.

6 Persist mapping configuration as a new version + write audit log entry.

7 Unlock routing engine only when validation passes.

4. Mapping Model

One-to-one mapping: Internal Field → (Board → Column). Stored payload per internal field:

```
{ internal_field_id, board_id, column_id, monday_column_type, internal_field_type,
required, mapping_version, updated_at }
```

5. Validation Rules

- Block save if any required internal field is unmapped.
- Block save if selected Monday column type is incompatible with internal field type.
- Block save if sample records fail normalization (e.g., cannot parse date/number/status).
- Errors must be explicit: internal field name + selected board/column + failure reason.
- Phase 1 does NOT validate cross-board relational correctness; admin is responsible for choosing the correct source column.

6. Data Persistence & Versioning

Every save creates a new mapping version (append-only history). Any change triggers re-validation and may re-lock routing until valid. All changes must be recorded in audit logs (actor, diff, timestamp).

7. Security & Permissions

Only System Admin / Org Manager can access and modify mapping. Unauthorized roles must not see or call mapping endpoints. All privileged actions must be logged.

8. Completion Criteria

- Mapping saved as a new version
- Validation passes (required + types + normalization)
- Routing engine unlocked