

Product Requirements Document (PRD)

BOO Integration Layer – ICD Builder (Fields Catalog → Visual Mapping Tool)

Version: v0.1

Owner: Integrated Business Systems (Joseph Vitello)

Purpose: Auto-generate flow-level field mappings using the fields_catalog and ICD master schema, removing manual lookup and copy/paste. Supports all 18 flows in the BOO Integration Package.

1. Document Overview & Purpose

Complex's Integration Control Document (ICD) is the authoritative mapping between Centric PLM, Fulfil ERP, and Salsify PIM across 18 flows. The current process requires manual lookup of each field's metadata from the fields_catalog sheet. This tool imports the catalog, provides a drag-and-drop UI, and exports ICD-ready mappings.

2. Goals & Non-Goals

Goals:

- Import fields_catalog.csv and existing ICD mappings.
- Provide visual drag-and-drop UI.
- Auto-populate metadata: type, required, PK/FK/Ref, business object, allowed values.
- Validate mismatches and missing transforms.
- Export CSV and JSON.

Non-Goals:

- Not building transformation engine or lineage tool.

3. Users & Use Cases

Primary Users: Integration Architect, Backend Engineers, QA.

Use Cases: Map Centric→Fulfil, Fulfil→Salsify, validate flow completeness, export Data Contract JSON.

4. Functional Requirements

- Import fields from CSV.
- Mapping UI with source/target browsers.
- Transform rule library (identity, enum_lookup, cnl_resolve, compose, etc.).
- Real-time validation.
- Export to ICD CSV, Data Contract JSON, BOO Engine Mapping Profile.

5. Architecture / Technical Design

Frontend: React, DnD library.

Backend: Node.js/Express, CSV parser.

Data Model: field object, mapping object.

File Structure: /src/frontend, /src/backend, /data.

6. User Flows

Example: User drags Centric default_color to Fulfil attributes.Color, AI suggests cnl_resolve(), user approves, row added.

7. Performance Requirements

Load catalog <200ms, validation <100ms/change.

8. Open Issues

Bi-directional canvas? Central rule registry? Embed GPT locally or via API?

9. Future Enhancements

Versioning, diff viewer, TS interface generation, Snowflake lineage export.