**The Specification and Planning Process**

**Purpose**

This guide outlines a repeatable process for planning, specifying, and delivering a prototype or integration project, as demonstrated in the DTN ADMLOD Export Prototype.

**Step-by-Step Process**

**1. Business Requirements Specification (BRS)**

* Define the project’s objective, scope, stakeholders, business rules, and success criteria.
* Ensure all parties agree on what the project is and is not.

**2. Functional Specification (FS)**

* Detail what the system must do (features, user interactions, error scenarios, outputs).
* Specify CLI commands, file formats, and expected behaviors.

**3. Technical/Architecture Specification**

* Describe the system’s structure, technology stack, modules/classes, and data flow.
* Define file structure, error simulation, and logging.

**4. User Stories (with Acceptance Criteria)**

* Capture requirements from the user’s perspective.
* Add clear acceptance criteria for each story.

**5. Test Plan**

* Define test objectives, scope, environment, and test cases.
* Specify expected results and acceptance criteria.

**6. Coding Guidelines**

* Establish naming, formatting, error handling, documentation, and code style rules.
* Reference industry standards and project-specific conventions.

**7. Deployment/Runbook**

* Provide clear build, run, and troubleshooting instructions.
* Document directory structure, CLI usage, and maintenance tips.

**Best Practices**

* **Iterate:** Review and refine each document with stakeholders before moving to the next.
* **Traceability:** Ensure every requirement is testable and mapped to user stories and test cases.
* **Clarity:** Use simple, unambiguous language in all documentation.
* **Modularity:** Design for change—keep code and documentation modular and maintainable.
* **Documentation:** Keep all documents versioned and accessible.

**When to Use This Process**

* New prototypes or proof-of-concept projects
* Integration projects with external systems
* Any project where clarity, alignment, and testability are critical