Requirements Analysis And Design Definition

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Requirements Analysis & Design Definition

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Requirements Analysis & Design Definition

Category: BABOK v3
Framework Compliance: Aligned with IIBA BABOK v3, Section 5: Requirements Analysis & Design Definition
Project: ADPA – Advanced Document Processing & Automation Framework

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Purpose

The Requirements Analysis & Design Definition (RADD) process for the ADPA Framework establishes a structured, repeatable approach to specifying, modeling, verifying, and validating requirements and designs. This ensures that all automation features, AI integrations, and enterprise documentation capabilities satisfy business needs, regulatory mandates, and stakeholder expectations. RADD supports the delivery of standards-compliant solutions for professional documentation and enterprise automation.

Scope

This document applies to all ADPA functional areas:

- AI-powered document generation (BABOK, PMBOK, DMBOK)
- Project management and business analysis automation
- Integration modules (Confluence, SharePoint, Adobe, VCS)
- Security and compliance features
- REST API and CLI/Web interfaces

Key Activities

1. Specify and Model Requirements

- **Structure Requirements:** Organize business, stakeholder, and solution requirements according to BABOK v3 guidelines.
- **Modeling:** Use standard templates and AI-assisted modeling to define data, process, and interface requirements for each ADPA

module.
- **Traceability:** Maintain traceability from business needs through stakeholder and solution requirements using the ADPA requirements registry.

2. Verify and Validate Requirements

- **Verification:** Ensure requirements are complete, clear, consistent, and feasible using automated and manual review processes.
- **Validation:** Confirm alignment with business objectives, regulatory requirements (Basel III, GDPR, SOX, etc.), and stakeholder expectations.
- **Acceptance Criteria:** Define measurable acceptance criteria for each requirement, leveraging ADPA's standards-compliant templates.

3. Define Solution Options

- **Option Analysis:** Identify alternative design and implementation approaches (e.g., AI provider selection, document generation workflows).
- **Feasibility Assessment:** Evaluate technical, operational, and compliance feasibility for each solution option.
- **Stakeholder Review:** Present solution options to key stakeholders (e.g., architects, security, business owners) for collaborative decision-making.

4. Analyze Potential Value and Recommend Solutions

- **Benefit Assessment:** Quantify value delivered by each solution option (e.g., automation efficiency, compliance coverage, integration breadth).
- **Risk & Impact Analysis:** Evaluate risks (technical, security, regulatory) and mitigation strategies.
- **Recommendation:** Select and document the recommended solution(s), justifying decisions based on value, risk, and alignment

with enterprise goals.

Techniques & Tools

- **Templates:** Standards-aligned document templates (BABOK, PMBOK, DMBOK) generated by ADPA.
- **Modeling Tools:** AI-powered modeling (OpenAI, Google AI, Copilot, Ollama), visual diagrams (interactive Gantt, timeline, data models).
- **Workshops & Interviews:** Stakeholder engagement via integrated collaboration features.
- **Traceability Matrix:** Automated requirements traceability and coverage analysis via ADPA analytics.
- **Validation Scripts:** Automated acceptance testing and requirements verification.

Stakeholders

- **Product Owner:** Responsible for prioritizing requirements and accepting deliverables.
- **Business Analyst:** Facilitates requirements analysis, modeling, and validation.
- **Technical Lead:** Guides solution architecture and technical feasibility.
- **Compliance Officer:** Ensures regulatory, security, and audit requirements are met.
- **End Users:** Provide feedback and acceptance for functional/non-functional requirements.

Checklist

- ☑ All functional and non-functional requirements specified and modeled
- ☑ Requirements verified for completeness, clarity, and feasibility

- ☑ Requirements validated with stakeholders and mapped to business objectives
- ☑ Solution options identified, analyzed, and documented
- ☑ Value, risk, and impact assessment completed
- ☑ Solution recommendation and rationale documented
- ☑ Acceptance criteria and traceability established

Summary

The Requirements Analysis & Design Definition phase ensures that the ADPA framework delivers highly automated, standards-compliant, and secure solutions for enterprise documentation and process automation. By applying BABOK best practices and leveraging ADPA's AI and integration capabilities, requirements are captured, modeled, and validated efficiently, enabling value-driven decision-making and successful project delivery.

Revision History

Date	Version	Author	Description
2025-07-18	1.0	ADPA Document Generator	Initial version

References:

- BABOK v3, Section 5: Requirements Analysis & Design Definition
- ADPA Project README, v3.2.0
- ADPA Sample Business Requirements Document
- ADPA Templates and Process Checklists

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