

Schedule Network Diagram

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Description: PMBOK Schedule Network Diagram

Schedule Network Diagram for Requirements Gathering Agent

This document outlines the project schedule using the Precedence Diagramming Method (PDM). Durations are estimates and should be refined during detailed planning. This diagram focuses on key activities and phases; a more granular diagram would be created during detailed scheduling.

Network Diagram Overview

Diagramming Method: Precedence Diagramming Method (PDM)

Project Phases: The project is divided into five phases: Initiation, Planning, Execution, Monitoring & Control, and Closure.

Critical Path: The critical path will be determined through network analysis (see below).

Schedule Constraints: Key constraints include the availability of AI resources, stakeholder availability for reviews, and the release deadlines for the prerelease version.

Activity Network Structure

The following table details the activities, their dependencies, and estimated durations. Dependencies are represented by Finish-to-Start (FS) relationships unless otherwise noted. Durations are in days.

Activity ID	Activity Description	Duration (Days)	Predecessors	Successors	Dependency Type
1	Define Project Charter	2		2	
2	Develop Project Charter	3	1	3	FS
3	Stakeholder Identification & Analysis	4	2	4, 5	FS
4	Requirements Gathering & Analysis	7	3	6	FS
5	Initial Risk Assessment	2	3	6	FS
6	Develop Project Scope Statement	3	4, 5	7	FS

Activity ID	Activity Description	Duration (Days)	Predecessors	Successors	Dependency Type
7	High-Level Design & Architecture Definition	5	6	8	FS
8	Resource Planning & Allocation	3	7	9	FS
9	Detailed Design & Development	14	8	10	FS
10	Unit Testing	5	9	11	FS
11	Integration Testing	3	10	12	FS
12	System Testing	4	11	13	FS
13	Deployment Preparation	2	12	14	FS
14	Deployment & Release	1	13	15	FS
15	User Acceptance Testing	3	14	16	FS
16	Final Documentation & Reporting	2	15	17	FS
17	Project Closure Meeting & Lessons Learned Documentation	1	16	[End]	FS

Note: This is a simplified representation. Many activities within each phase (e.g., “Detailed Design & Development”) would be further broken down into smaller, more manageable tasks in a full project schedule.

Network Analysis

Critical Path Analysis: The critical path will be determined using standard network analysis techniques (forward and backward pass). The longest path through the network represents the critical path and determines the shortest possible project duration. Software tools like Microsoft Project or Primavera P6 are typically used for this analysis.

Float Analysis: Float (slack) will be calculated for each activity to identify potential schedule flexibility. This analysis will help in resource allocation and risk management.

Network Diagram Representation

Due to the complexity of a full PDM network diagram for this project, a visual representation is not included in this document. A visual diagram would be created using project management software. The table above provides the necessary information to create the diagram.

Schedule Optimization

Techniques like schedule compression (fast-tracking and crashing) and resource leveling will be considered to optimize the schedule, taking into account resource constraints and budget limitations. A schedule baseline will be established upon approval, and a change control process will be implemented to manage schedule modifications.

This Schedule Network Diagram provides a high-level overview. A more detailed schedule will be developed during the detailed planning phase, incorporating more granular tasks, dependencies, and resource assignments. Regular monitoring and control activities will ensure the project stays on track.