## Create WBS Process

**Document ID:** WBS-PROC-001 **Version:** 1.0 **Date:** October 26, 2023 **Author:** PMBOK-Certified Project Manager

### 1. Process Overview

**1.1 Purpose and Objectives:** The purpose of this process is to create a Work Breakdown Structure (WBS) for the Requirements Gathering Agent project, decomposing the project scope into smaller, manageable work packages. The objectives are to:

* Clearly define the project scope and deliverables.
* Establish a baseline for scope control.
* Facilitate accurate cost and schedule estimation.
* Improve communication and coordination among team members.
* Provide a foundation for project planning and execution.

**1.2 Process Scope and Boundaries:** This process encompasses the creation of the WBS and its associated WBS dictionary. It includes the decomposition of the project scope, definition of work packages, and the establishment of the hierarchical structure. The process does *not* include the creation of the project schedule or cost estimates, although the WBS serves as a crucial input for these processes.

**1.3 Integration with Scope Management Processes:** This process is a key component of the scope management process. The WBS, once approved, becomes part of the scope baseline, providing a verifiable basis for scope control throughout the project lifecycle. It directly supports scope definition, scope verification, and scope control processes.

**1.4 PMBOK Process Group and Knowledge Area Alignment:** This process belongs to the Planning Process Group and the Scope Management Knowledge Area within the PMBOK Guide.

### 2. Process Inputs

* **Project Scope Statement:** Provides a high-level description of the project’s objectives, deliverables, and boundaries. (See 03\_PROJECT\_SCOPE\_STATEMENT.MD)
* **Requirements Documentation:** Details the functional and non-functional requirements of the Requirements Gathering Agent. (See 02\_REQUIREMENTS\_MANAGEMENT\_PLAN.MD)
* **Enterprise Environmental Factors:** External factors that influence the project, such as organizational policies, regulatory requirements, and market conditions.
* **Organizational Process Assets:** Templates, guidelines, and historical information from past projects that can be leveraged for WBS creation.

### 3. Tools and Techniques

* **Decomposition Techniques:** Techniques used to break down the project scope into smaller, more manageable components. For this project, a combination of top-down and bottom-up decomposition will be used, leveraging the existing project structure and functionality outlined in the README.
* **Expert Judgment:** Input from experienced project managers and subject matter experts to ensure the WBS is accurate, complete, and aligned with project objectives.
* **Templates and Historical Information:** Utilizing existing WBS templates and information from past projects to streamline the creation process and ensure consistency.
* **Rolling Wave Planning:** A progressive elaboration approach where higher-level WBS elements are defined initially, with lower-level details added as the project progresses. This will be used to accommodate evolving requirements and technological considerations.

### 4. Process Outputs

* **Scope Baseline (WBS, WBS Dictionary, Project Scope Statement):** The approved WBS, WBS dictionary, and project scope statement form the scope baseline, a key project management deliverable that establishes a formal agreement on the project scope.
* **Project Documents Updates:** The project management plan and other relevant documents will be updated to reflect the approved WBS.
* **Lessons Learned and Process Improvements:** Any insights gained during the WBS creation process will be documented to improve future WBS development efforts.

### 5. WBS Development Activities

**5.1 Scope Decomposition Approach:** A hierarchical decomposition approach will be used, starting with the major deliverables (e.g., Core Analysis, Project Charter, Management Plans, etc. as outlined in the project README) and progressively breaking them down into smaller work packages until they are sufficiently detailed for task assignment and estimation.

**5.2 Work Package Definition Criteria:** Work packages will be defined based on the following criteria:

* **Manageability:** Each work package should be small enough to be managed effectively by a single individual or a small team.
* **Measurability:** Clear and measurable deliverables for each work package.
* **Time Estimation:** Work packages should be of a duration that allows for reasonable time estimation.
* **Assignability:** Each work package should be clearly assignable to a specific team member or group.

**5.3 Hierarchical Structure Development:** The WBS will utilize a hierarchical structure, with the highest level representing the entire project and lower levels representing progressively smaller components. A clear numbering system will be used to identify each work package uniquely.

**5.4 100% Rule Application:** The WBS will adhere to the 100% rule, ensuring that all elements of the project scope are included within the WBS, and that no work is duplicated or omitted.

### 6. Quality Considerations

**6.1 WBS Quality Criteria and Standards:** The WBS will be evaluated against the following criteria:

* **Completeness:** All project deliverables are included.
* **Accuracy:** The WBS accurately reflects the project scope.
* **Clarity:** The WBS is clearly understandable to all stakeholders.
* **Consistency:** The WBS is consistent with other project documents.
* **Correctness:** The WBS adheres to PMBOK standards and organizational guidelines.

**6.2 Review and Validation Processes:** The WBS will undergo a formal review process involving key stakeholders to ensure accuracy and completeness.

**6.3 Stakeholder Approval Procedures:** Formal approval from relevant stakeholders will be obtained before the WBS is finalized and becomes part of the scope baseline.

**6.4 Documentation Requirements:** The WBS and WBS dictionary will be documented using a standardized format and maintained throughout the project lifecycle.

### 7. Process Guidelines

* **WBS Creation Best Practices:** Adhere to PMBOK guidelines and utilize proven WBS creation techniques.
* **Common Decomposition Patterns:** Utilize common decomposition patterns (e.g., functional, process-oriented) as appropriate for the project.
* **Work Package Sizing Guidelines:** Follow established guidelines for work package sizing, aiming for manageable and measurable units of work.
* **Numbering and Coding Standards:** Employ a consistent numbering and coding system for work packages to maintain clarity and traceability.

### 8. Integration Points

* **Connection to Schedule Development:** The WBS will serve as the basis for developing the project schedule, with each work package being assigned a duration and dependencies.
* **Resource Planning Integration:** The WBS will be used to identify the resources required for each work package, facilitating resource allocation and planning.
* **Cost Estimation Alignment:** The WBS will be used to estimate the costs associated with each work package, enabling accurate budget development.
* **Risk Identification Support:** The WBS will help identify potential risks associated with each work package, facilitating effective risk management.

### 9. Process Metrics

* **WBS Quality Measurements:** Metrics such as completeness, accuracy, and clarity will be used to assess the quality of the WBS.
* **Development Efficiency Metrics:** Metrics such as the time taken to develop the WBS and the number of iterations required will be tracked to assess efficiency.
* **Stakeholder Satisfaction Indicators:** Feedback from stakeholders will be gathered to assess their satisfaction with the WBS.
* **Process Improvement Measures:** Lessons learned will be documented to identify areas for improvement in the WBS creation process.

### 10. Risk Management

* **WBS-related Risks and Mitigation:** Potential risks include incomplete scope definition, inaccurate work package decomposition, and stakeholder disagreement. Mitigation strategies will include thorough requirements gathering, expert reviews, and stakeholder engagement.
* **Quality Assurance Procedures:** Formal reviews and validation processes will be implemented to ensure WBS quality.
* **Review and Approval Processes:** A formal review and approval process will be followed to ensure stakeholder buy-in and consensus.
* **Change Control Considerations:** A change control process will be in place to manage any changes to the WBS after it is approved.

This document provides a framework for the creation of the WBS for the Requirements Gathering Agent project. Specific details and tailoring will occur during the actual WBS development process based on project needs and stakeholder input.