

Creating a Work Breakdown Structure:

Core Principles and Practice



WBS: deliverable-oriented, hierarchical decomposition of total project scope



Focus on "what" we produce (nouns), not "how" we do it (verbs)



Foundation for accurate estimation, assignment, and scope control



Goal: decompose a real deliverable into assignable work packages



What a WBS Is (and What It Is Not)

WBS: Deliverables (What)

Organized. Hierarchical. Clear.



Focus on
Deliverables,
Not Activities

Not a WBS: Activities (How)

Tangled. Process-Focused. Confusing.



- A deliverable-oriented, hierarchical decomposition of the total project scope



- Shows 'what' will be produced, not 'how'—contains deliverables, not activities



- Contrast with a task list, project schedule, and organizational chart



- Use nouns for deliverables; 'User Research Report' is a deliverable, 'Conduct user interviews' is an activity

The 100% Rule and Deliverable-Driven Thinking



- **100% Rule:** WBS captures the entire project scope, no more, no less



- Child levels must represent 100% of the parent's scope



- Starting from deliverables (nouns) prevents scope creep



- Internal deliverables: for the team; External: for stakeholders



- Interim deliverables: enabling outputs produced along the way

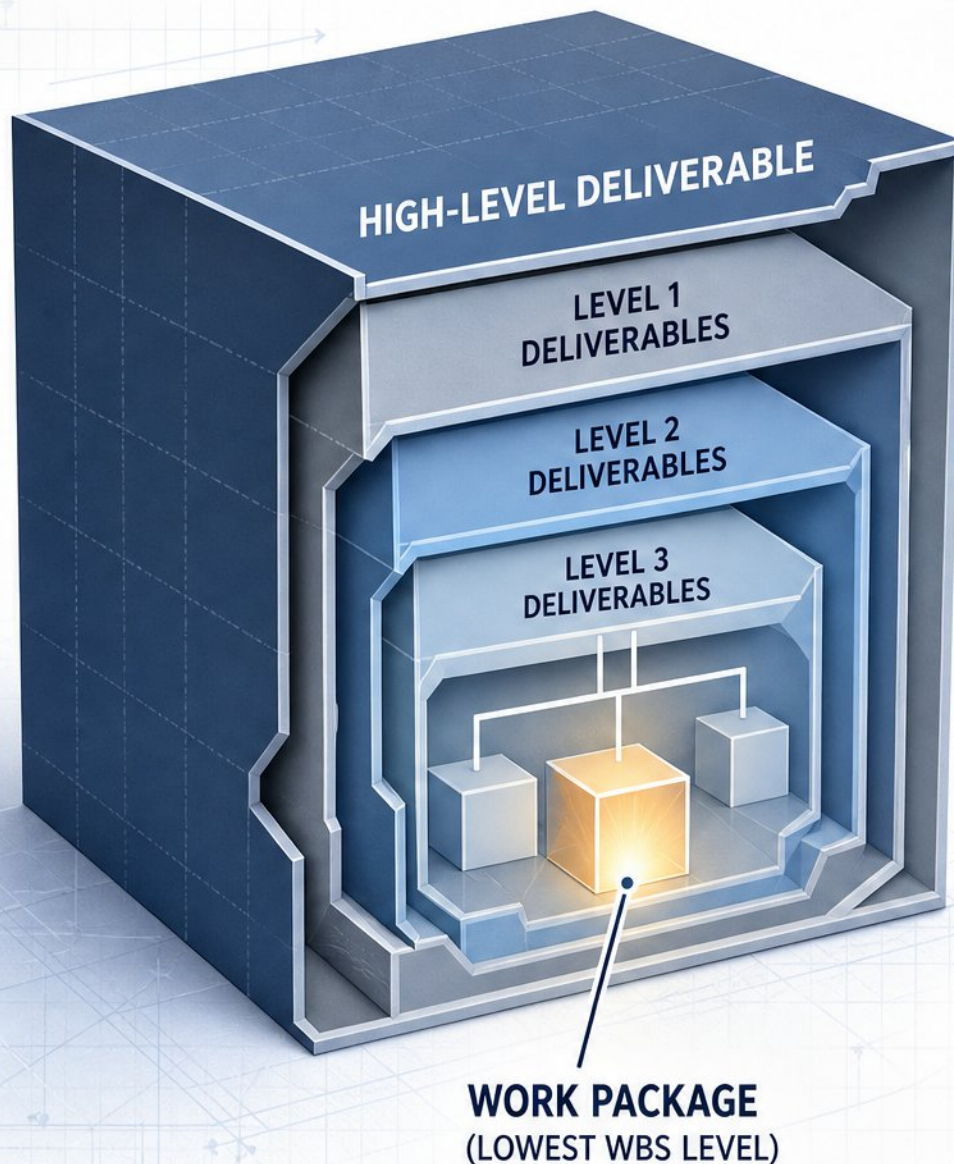


Internal Deliverables
for the team



External Deliverables
for stakeholders

Decomposition: From High-Level Deliverable to Work Package

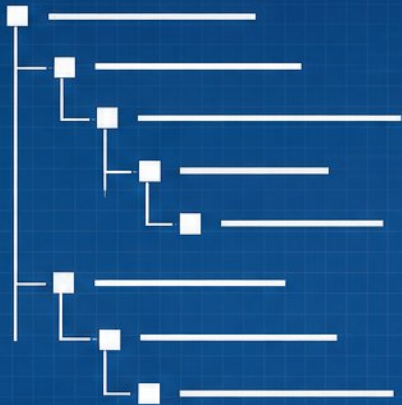


- Decomposition is a top-down technique breaking scope into manageable deliverables
- Work packages are the lowest WBS level: estimable, schedulable, and assignable
- Apply the 8/80 rule: size work packages between 8 and 80 hours of effort
- Use the reporting-period rule: a work package fits within one status interval
- Example: "E-commerce Website" → "User Research Report" → "Interview Transcripts"

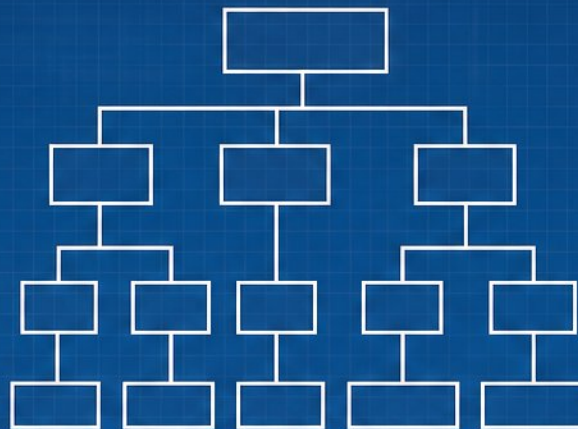


Structuring a WBS for Clarity and Assignment

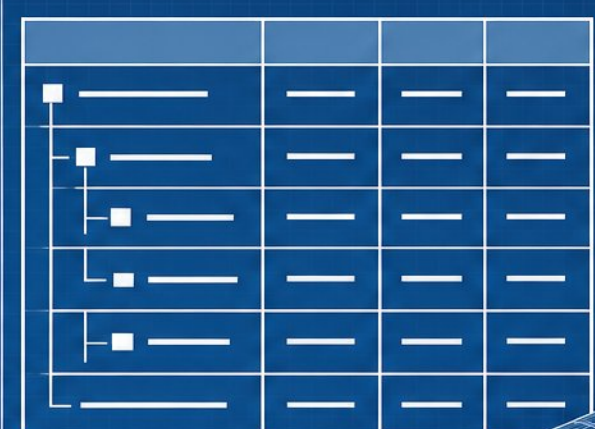
OUTLINE FORMAT



TREE DIAGRAM FORMAT



TABULAR FORMAT



- Choose outline, tree diagram, or tabular format for the WBS



- Use nouns to describe what is produced, not activities



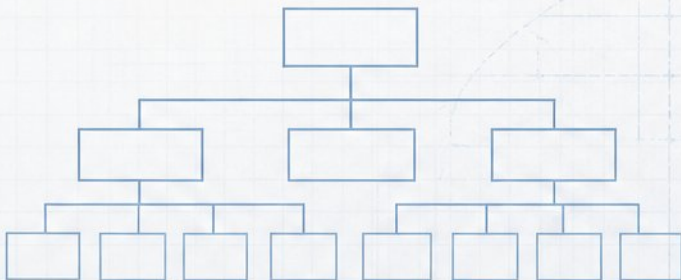
- Build the structure before assigning team members ownership



- A WBS dictionary provides precise scope definition per node

The WBS Dictionary: Your Scope Contract

- Turns every work package into an unambiguous scope agreement
- Mandatory fields: Code, Scope Description, Exclusions, Acceptance Criteria, Owner
- Example: WBS 3.2.1 – "Licensed Landscape Architect Report"
- Exclusions field is your strongest tool to prevent scope disputes



WBS DICTIONARY ENTRY		
	Code:	WBS 3.2.1
	Scope Description:	Prepare a Licensed Landscape Architect Report in accordance with project requirements.
	Exclusions:	Does not include site surveys, geotechnical studies, permitting fees, or construction administration services.
	Acceptance Criteria:	Report is stamped by a licensed landscape architect and accepted by the project owner.
	Owner:	Project Design Team

Building a WBS as a Team



- WBS creation requires cross-functional collaboration, not solo effort.



- Key workshop roles: facilitator, subject matter experts, scope holders.



- Use whiteboards, sticky notes, or Miro for visual group decomposition.



- Surface disagreements early to negotiate clear, agreed scope boundaries.



From WBS to Schedule, Cost, and Risk



- Each work package feeds the Define Activities process to build the schedule



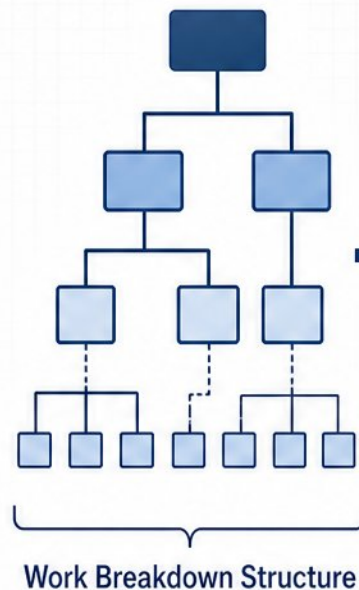
- Control Account = WBS element $\cap$ OBS element; where scope, budget, and schedule integrate



- Work package estimates roll up into the control account for cost and earned value measurement



- Granular deliverables expose granular risks, strengthening early risk identification



Schedule

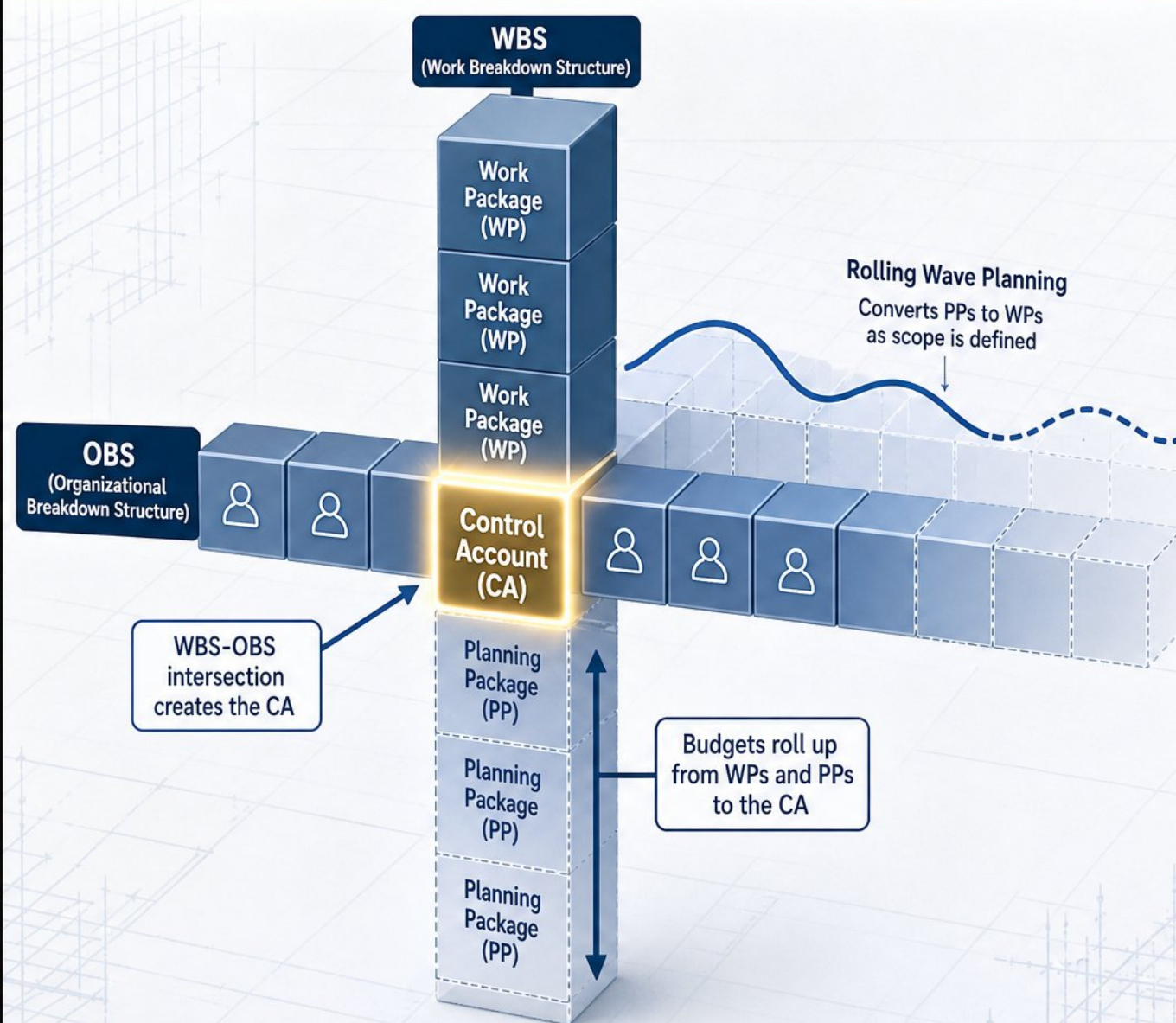


Cost

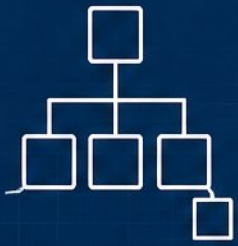


Risk

Control Accounts and Work Packages in Practice



- **Control Account (CA):** integrates scope, budget, and schedule at a single management point
- **Work Packages (WP):** detailed, near-term tasks with measurable units for earned value
- **Planning Packages (PP):** far-term, less-defined work scope converted to WPs via rolling wave planning
- **WBS-OBS intersection creates the CA;** budgets roll up from WPs and PPs to the CA



Common WBS Mistakes and How to Catch Them



- Creating a task list (verbs) instead of a deliverable hierarchy (nouns)



- Decomposing too much (gold-plating) or too little (vague packages)



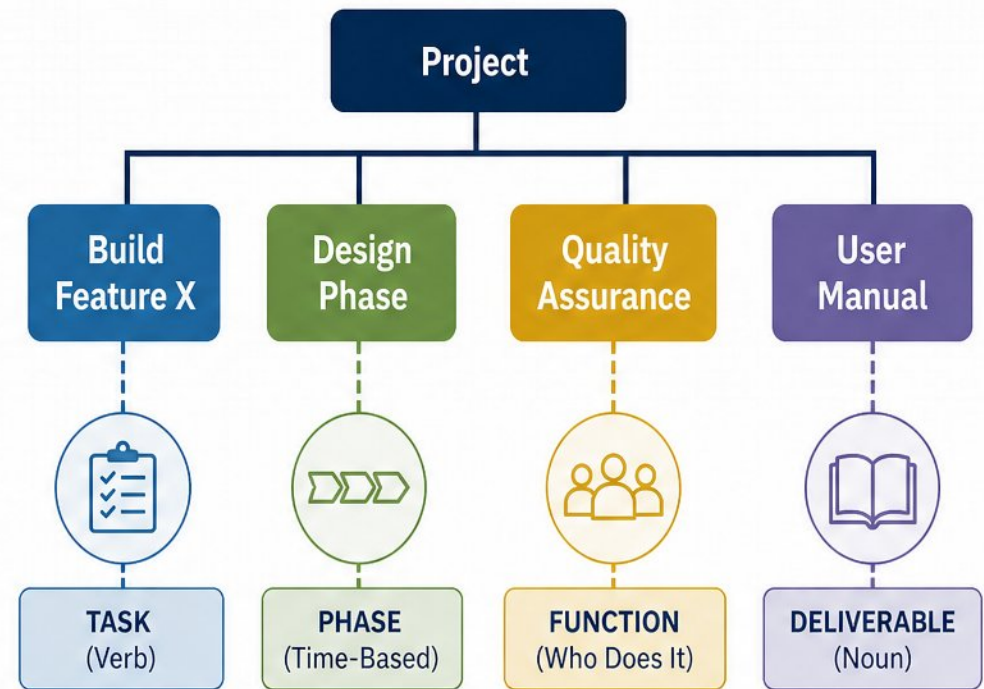
- Mixing phases, deliverables, and functions at the same WBS level



- Failing to update the WBS after approved scope changes



Broken WBS Example



Mixed types at the same WBS level leads to confusion and poor control.

WBS Quality Gates: Your Validation Checklist



- Use a step-by-step checklist to verify WBS completeness and correctness.

⋮



- Validate the 100% rule and mutual exclusivity for every level.

⋮



- Require peer review and formal stakeholder sign-off before baseline.

⋮



- Treat the WBS as a living document: implement version control and change integration.

WBS QUALITY GATES

VALIDATION CHECKLIST



Use a step-by-step checklist to verify WBS completeness and correctness.



Validate the 100% rule and mutual exclusivity for every level.



Require peer review and formal stakeholder sign-off before baseline.

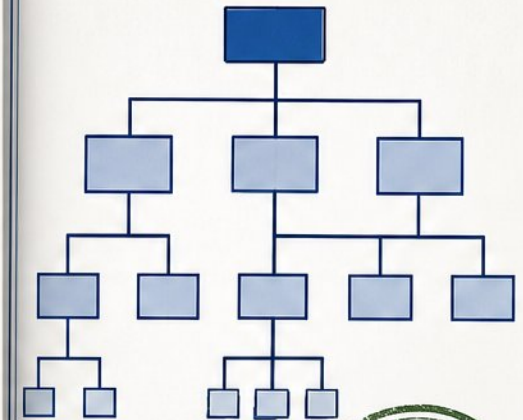


Treat the WBS as a living document: implement version control and change integration.

CHECK • VERIFY • APPROVE

WBS STRUCTURE

APPROVED SPECIMEN

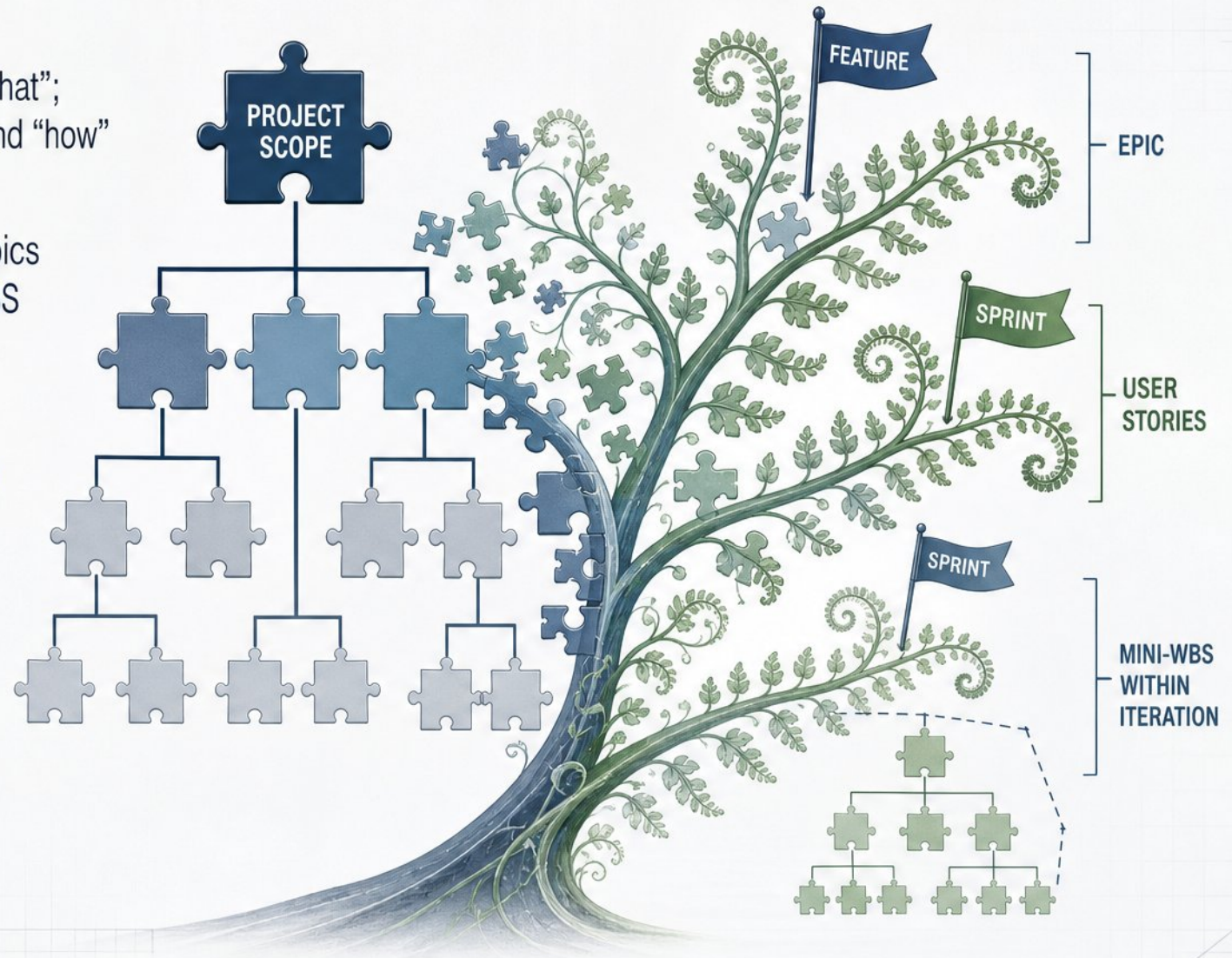


- ▶ Apply WBS decomposition to a compact project scenario
- ▶ Collaboratively break down high-level deliverables into work packages
- ▶ Compare team outputs to surface different approaches
- ▶ Reinforce standards for naming, sizing, and assignment



WBS in an Agile and Hybrid World

- **Deliverable focus** defines “what”; backlog sequences “when” and “how”
- **Features** decompose into epics and user stories, mirroring WBS work packages
- Apply **fractal decomposition**: a feature can have its own mini-WBS per iteration
- The WBS remains the **scope baseline** as requirements emerge and evolve



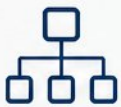
Wrangling a WBS in Large or Complex Projects



- **Control Account:** Intersection of WBS & OBS for integrated scope, cost, schedule management



- Use coding schemes for traceability from contract deliverables to work packages



- **Scalability:** From one control account for a paver project to hundreds for mega-projects



- WBS integrates with accounting systems and procurement structures



Your First Day Back: Applying WBS Skills Immediately



- Pick a real, upcoming deliverable and build a mini WBS for it



- Use the reusable template and compact quality checklist



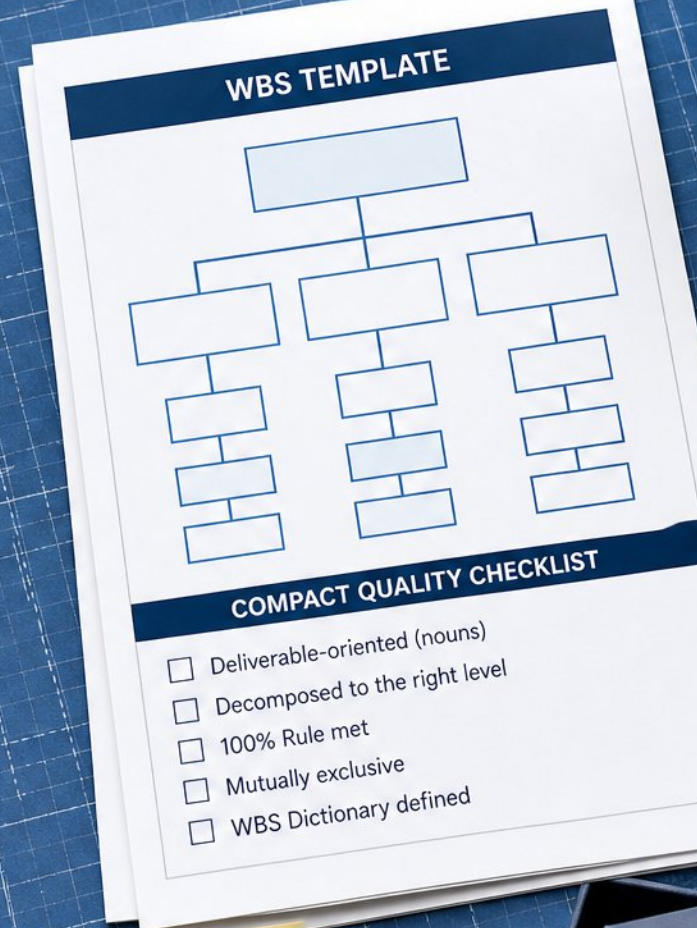
- Pitch to your sponsor: “Let’s define what we’ll produce before we discuss how”



- Core principles: deliverables, nouns, 100% rule, and the WBS dictionary



- Continue learning with the PMI Practice Standard for Work Breakdown Structures



Our Pitch Key Points

- Define the what before the how
- Align on deliverables
- Build clarity early
- Reduce rework later

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